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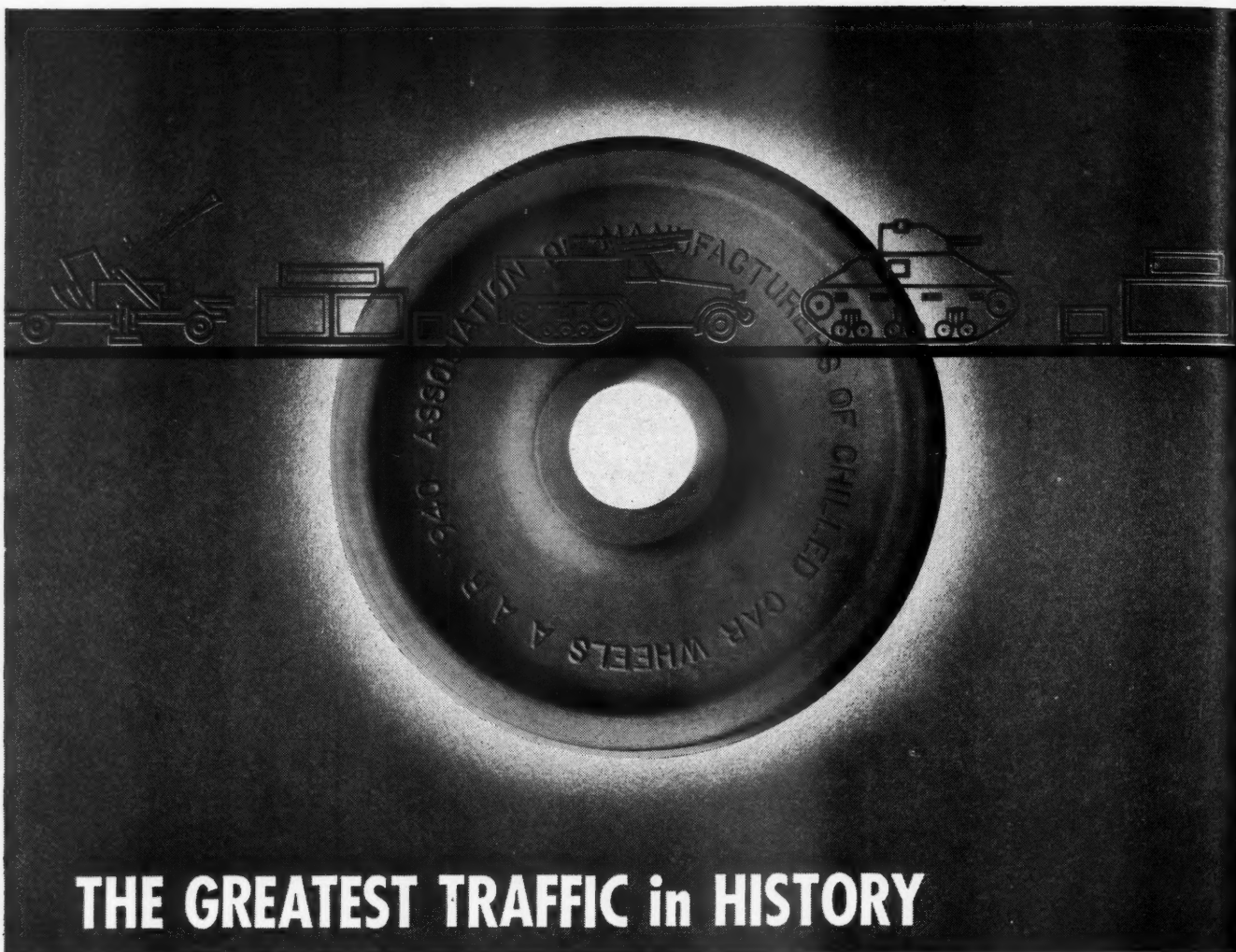


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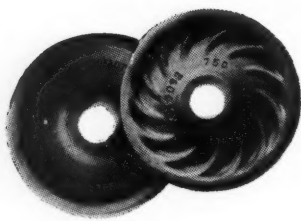
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Utopian Planning Versus Experience

The reports of the National Resources Planning Board recently sent to Congress by President Roosevelt, and the activities of the Committee for Economic Development which has been organized by business leaders, present to the American people the most important issue with which they are confronted. The objectives sought are the same—full employment after the war and corresponding large production of goods and services. The issue presented is the best *means* of attaining these objectives.

The President's Planning Board makes plain it believes the best means will be an economy making huge government investment largely in competition with private enterprise, and additionally restricting private enterprise by government controls and by government "partnership" with it. The Committee for Economic Development strives to develop a program under which private enterprise would assure almost full employment and corresponding production, and government spending and employment would be confined to needed public works affording no natural field for private investment. The issue squarely presented is that of a government-planned, government-dominated and government-spending economy, with continued heavy taxation, versus a private-enterprise economy, with greatly reduced taxation.

We have been trying to read and understand the reports of the National Resources Planning Board. It is hard work, because they are so badly written, long and dull, and so completely the product of "wishful thinking." They promise establishment of Utopia by numerous radical changes in government and business policies. But one searches them in vain for *evidence* that, without transforming human nature, the proposed changes in policies can be effected, or as to how they can be effected, or as to why the authors believe they would attain their objectives. Government, to carry them out, is to be made much less politically-minded, much wiser and more efficient. But *how*? Business and labor are to be made much less selfish and more co-operative in the national interest. But *how*?

Huge government spending, they say, will be worth while because "productive." But how much government spending would there have to be? How would the taxes for it be divided? What effects would unprecedentedly heavy peace-time taxation have on peace-time employment and production, especially by private enterprise? Why assume that all government "investment" would be "productive" when always in the past so much of government spending, and even of private investment, have proved unproductive?

Such vitally important questions are left unanswered. Why? Because, no such program as is advocated ever having been tried in any country, there is no *experience* affording evidence as to what its results would be, or even that it could be carried out.

The Committee for Economic Development has the great advantage that it is working on a basis of experience and facts—experience showing how past definite policies of government, business and labor actually have worked; facts regarding the nation's potential peace-time markets and the potential capacity of its private enterprise system for supplying them.

The struggle is between a Utopian government enterprise system supported only by theories as to whether and how it would work, and a private enterprise system supported as to whether and how it would work by the experience of the world.

Efficiency
FOR VICTORY

Indispensability Of the Railways

"Before the war the importance of the railways was not understood. There was a fairly wide belief that they were becoming obsolete as the main means of transport, and that the interests of the country would be best served by an intensive development of the road as against the rail."

The foregoing statement sounds as if made about the railways of the United States; but it was not. It is quoted from remarks made by Sir Thomas Royden, chairman of the London, Midland & Scottish, largest railway in Great Britain, at the recent annual meeting of its stockholders.

Sir Thomas said that in Great Britain this "obsolete" agency has during the war increased its transportation of freight by 41 per cent and of passengers by one-third. Comparable figures for United States railways are an increase in 1942 over 1939 of 92 per cent in freight traffic handled and of 137 per cent in passenger traffic; but our railways have not had aerial attack to contend with, and their peace-time utilization was, probably, at a lower ratio to capacity than that of the British railways.

The railways of Britain, like American railways, came up to the war prepared to do their part in fighting it, in spite of the fact that public and politics had not understood their national importance. The railways of both countries were ready for the job *despite all manner of public discouragement*. They had been handicapped in meeting the competition of new and popular rivals, and beset with difficulties in engaging in the new forms of transportation themselves—meanwhile continuing in operation at a loss many lines which war experience has shown to be of strategic military value.

The railways have proved their indispensability to national industrial and military efficiency—even to national existence. But what proportion of our population knows this? Certainly the trucking association showed confidence in public ignorance when it made its recent claim that "with one-twentieth the railroad capacity, trucks haul one-fourth the load in less than half the time." The Interstate Commerce Commission in its recent annual report estimated that in 1941 our railways rendered eight and one-half times as much freight service as inter-city trucks; and the rubber shortage and other developments have since made it necessary for them to assume a largely increased part of the total freight burden.

The railroads recognize the importance of other agencies of transportation, as evidenced by the fact that they use them to the extent that public authorities will permit. But none or all of these other agencies could have taken over as large a part of the entire job of wartime transportation as the railways have. The mere *increase* since 1941 in the freight traffic now being

handled by the railways has been greater than the total traffic handled by trucks, Great Lakes, other inland waterways, pipe lines and airways in 1941. Air transport (and to a less, though vital, degree highway transport) *cannot even operate* without more economical transportation to supply it fuel.

The exploits of army transport planes have won deserved acclaim. But such achievements are *end products* of a national system of production of which adequate and efficient railways are the most indispensable part. If the only means of transportation we had within the United States were highways, inland waterways, pipe lines and planes, the public could not be thrilled by the achievements of air transport on far-distant fronts, because we couldn't have sufficient planes to send on such missions, nor tankers to keep them in fuel, nor armies throughout the world to be so spectacularly supplied.

The familiar and unglamorous freight train on the home front is doing more of the effective fighting than all other carriers by land, water and air combined. And it will do more for post-war prosperity than all of them if given a chance.

Getting Trains Out of Yards

The necessity for moving war traffic in minimum overall time between terminals, and the increased volume of traffic, have created two distinct problems, the conflict between which may increase the difficulty of finding a solution. One problem is to get trains over a division and into the next yard in the shortest practicable time; the other is to get the trains out of that yard and on their way over the next division, or to connections.

New and larger yards cannot be planned and constructed over-night, and even if they could, the expenditure might prove to be unjustified after the war. A solution of the present problem, therefore, is to determine those items in the operations of these yards which can be improved promptly and with a minimum installation of new facilities.

One of the most exasperating troubles of yardmasters is that some trains continue to occupy tracks long after they are ready to depart; thus they hold out other trains and hamper yard operations as a whole. Under time-table and train order operation, a dispatcher must plan train movements and issue orders based on the departure of trains from yards at certain specific times, an hour or more in the future. If the trains do not depart as planned, the orders must be changed accordingly. Since, in the meantime, other trains on the line must be kept moving, the most convenient practice may be to allow the trains in the yard to wait until the rush subsides, after which the dispatcher can issue new orders.

Yet, during this interval, there may have been periods in which the track and time were available to



have moved one or more of these trains out of the yard and advanced them a siding or two on the line.

A solution for the delays is to provide means for the authorization of train movements by signal indication under centralized traffic control, rather than by train orders. With the flip of a lever, the man in charge of the control machine can clear signals to authorize trains to move on a minute-to-minute basis. On many territories existing automatic signaling can be changed to C. T. C. by relocating certain signals and installing line control apparatus as well as office equipment. The costs of new materials necessary for such conversions are small as compared with those of other means for eliminating congestion in yards.

Passenger Crisis Impends

Two weeks ago we published an editorial entitled "Deterioration in Passenger Service." Events and information made available to us since that date, which reinforce both the observations and conclusions then set forth, may be summarized as follows:

1. Passenger service in some areas of the country has deteriorated to the point where it has begun to arouse serious criticism of the railroads.
2. The railroads cannot afford to permit public ill-will to be thus engendered, if they can possibly prevent it, because of the injury it is certain to inflict—politically, and traffic-wise in the post-war period.
3. The railroads need to put their best foot foremost in their attention to passenger business, because it is this traffic which gives them their widest public contact. Most people judge the over-all efficiency of private management of the railroads largely by their personal experience with passenger service.
4. Two steps, within the power of railroad management, which need to be taken to remedy this unwholesome and dangerous situation are (a) intensification and improvement of supervision of passenger operations and (b) a vigorous advertising and publicity campaign to discourage unnecessary travel.

The *Railway Age* does not have numerical information on the volume of troop travel which the railroads are going to have to contend with, but it knows that persons who *do* have this information are alarmed at the limited volume of passenger capacity which will be "left over" for civilian use. Couple this with the fact that the pockets of the mass of the people are bulging with money—and that "consumers' durables," for which they usually spend their spare funds, are not obtainable—and no clairvoyance is required to foresee an overwhelming pressure on railway passenger capacity this summer, unless it can somehow be forestalled. A similar—though less serious—overload threatened to develop during the 1942-43 year-end holiday season, but it was successfully prevented by advertising and publicity. There is every reason, therefore, why this device should again be utilized—on a commensurately

larger scale—to meet the much more serious and prolonged difficulty which now threatens.

When we say that better and more intensive supervision of passenger operations is urgently needed, we are not uttering an unfriendly "outside" criticism of the railroad industry. We are, rather, repeating an observation from some of the best-informed "inside" sources, wholly friendly to the industry. The alternative to commenting upon this situation, in the hope of stimulating its correction, involves far greater risk than frankly facing unpleasant facts while time still remains to remedy them.

Nobody can deny the extreme difficulty of intensifying supervision of passenger operations, nor that improved supervision is needed (especially in the direction of reducing delays in station handling of head-end traffic). Neither can it be denied that there is resourcefulness enough in the railroad industry to bring about at least some improvement in this direction, once the necessity is fully appreciated. That necessity is now upon us—increasing in intensity every day.

Weed Control No Frill

After being required to neglect the control of weeds in tracks for a number of years, many maintenance of way officers look forward to undertaking enlarged programs of weed control and eradication in the months immediately ahead. In this they should be encouraged by their superior officers.

Weeds in the track are as much an enemy of the trackman as weeds in the field are of the farmer. In neither case do they improve appearance, but in neither case is that the important or controlling factor. In the track, weeds interfere with the most effective work of the track forces, foul the ballast, retard drainage, and stimulate decay of ties. Weedy track may well become the enemy of the operating man also through interference with train operation and switching in yards, and through the hazard of fire which it presents at certain seasons.

Too often, unaware of these factors, or pressed by other demands, railway managements have not given adequate weight to requests for track weed control and eradication—perhaps have viewed it in the same light as a hand-set ballast toe line, a costly frill that can be dispensed with in time of stress. Such an appraisal is completely in error, because with the mechanical and chemical means available, maintenance officers can demonstrate that weed destruction not only promotes better track conditions, but makes possible large savings in labor.

To continue as the season advances with inadequate weed control will not only jeopardize track conditions, but risk the waste of many man-hours of track labor when the best possible track conditions must be maintained and when there can be no waste of labor without serious consequences.

S. P. Handles a Staggering Load

Pacific Lines are called upon for tremendously increased transportation production

PART I

THE Southern Pacific, whose principal lines are located in extremely strategic areas, has felt the full force of the national defense and war program, particularly on its Pacific Lines, as few other railways have. On this portion of the system, comprising the lines west of El Paso, Texas, spectacular increases in freight and passenger traffic are shown. All factors of traffic are showing large increases, among which are revenue passenger miles which were well over 100 per cent larger in 1942 than in 1929. While the war load is resulting in spectacular increases, traffic was already on the upgrade before Pearl Harbor, as a result of the increased industrialization of the West Coast—an outgrowth of the national defense and war programs.

The traffic load in 1941, as measured in net ton-miles of freight moved, increased about 37 per cent over 1940, itself an unusually good year, it was more than 47 per cent above 1929, and was the greatest in the history of the company: yet, the railway was able to handle all business offered, without undue delays, up to the actual declaration of war. Then the tremendous load was radically increased, almost overnight. Troop movements and other army traffic reached hitherto unheard of proportions. Yet the S. P. has been able to meet these

between 1929 and 1940. In the five years ending with and including 1940, the S. P. transportation system spent \$38,121,202 on additions and betterments and \$50,315,635 for equipment, a combined gross expenditure of \$88,436,837 for improving its plant.

Further expenditures of between \$49,000,000 and \$51,000,000 were made in 1941 and 1942 for rolling stock alone, in addition to which, jointly with the Union Pacific, the S. P. entered into a program of \$10,500,000 expenditures for new cars, and for rebuilding and heavy repairs to existing cars for their subsidiary, the Pacific Fruit Express, in 1942 and 1943, bringing the total expenditure for P. F. E. equipment since 1936 to \$56,500,000. These figures are analyzed in detail later, but they serve to show that the huge sums S. P. has expended to insure that adequate facilities and rolling stock might be available. No one could have foreseen the extent of the flood of traffic that descended upon this railway, but, without these huge expenditures, the transportation of war materials and men on the West Coast would certainly have bogged down.

Where the Traffic Came From

Almost every development of national economic importance in the last few years has served to increase the traffic of the S. P. The national defense program brought an immense number of airplane and other war

Table No. 1.—Freight and Passenger Traffic Increases
S. P.-Pacific Lines

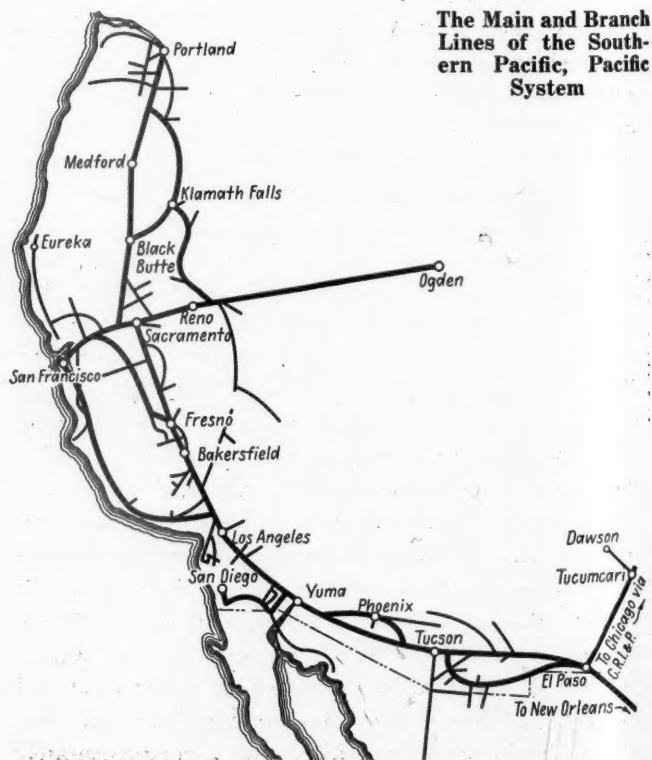
	Gross Ton Miles (Thousands)†			Revenue Passenger Miles*
	Freight	Passenger	Total	
Year 1929	37,989,651	10,925,734	48,915,385	1,414,684,311
Year 1939	37,603,623	10,664,870	48,268,493	1,421,374,409
Year 1940	42,217,511	10,680,280	52,897,791	1,328,150,750
Year 1941	54,384,708	12,138,282	66,522,990	1,746,057,784
Ten Months Period 1929..	32,337,364	9,105,843	41,443,207	1,208,908,784
" " " 1939..	31,164,256	8,950,890	40,115,146	1,220,012,950
" " " 1940..	34,426,513	8,873,768	43,300,281	1,110,037,377
" " " 1941..	44,752,065	9,875,451	54,627,516	1,409,823,799
" " " 1942..	57,281,560	12,600,799	69,882,359	2,675,441,850

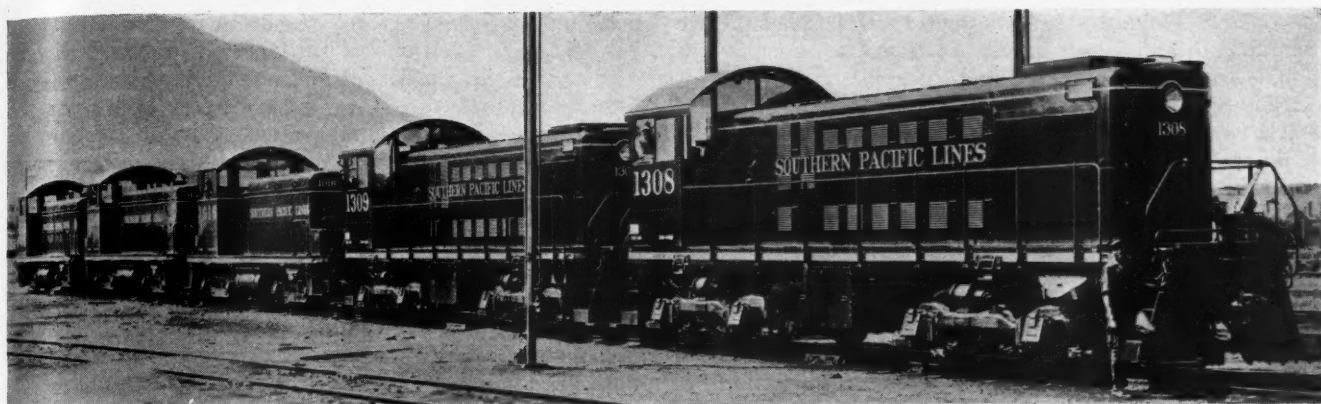
* Excludes passengers carried in electric service.

† Cars and contents, excluding weight of locomotive and tenders.

demands in a manner entirely satisfactory to military authorities. Naturally, under the terrific load, civilian freight and passenger traffic have been subject to some delays but the intrinsic soundness of the property and of the operating methods employed were demonstrated as the railway rapidly met its problems, despite the increased traffic load and other difficulties of wartime. A measure of this increase is found in the fact that, in two months in 1942, the S. P. Transportation System's net railway operating income was the largest for any railway in the country.

In common with most railways, the S. P. suffered from the lean years of the depression. However, its executives foresaw the possible increase in traffic and determined not to be caught napping, for \$170,000,000 was expended on the Pacific Lines alone for improvements





Part of the S. P. Fleet of Diesel-Electric Switching Locomotives

production factories to its territory, while this area bristles with Army camps, airfields, Navy land and air stations and other kindred war enterprises, so that the S. P. serves more of these than any other railway in the country. Naturally, the advent of actual war materially increased the already heavy traffic moving to and from these establishments, both as to men and materials. This is true not only with transcontinental traffic, but also with the traffic moving between the Pacific Northwest and Southern California, as well. The abandonment of intercoastal shipping via the Panama Canal brought a marked increase in this road's long-haul traffic, much of it lumber and other bulk freight which had been carried by water for many years.

The cumulative effect of all these developments is indicated in the change in the character of the traffic. Revenue from products of mines, for example, increased more than 44 per cent; next in order of increases were manufactures and miscellaneous and products of forests. On the other hand, products of agriculture, normally one of the largest items in S. P. revenues, increased less than 15 per cent. The general trend of loaded traffic has been predominantly eastbound throughout the S. P. history; today westbound tonnage is greater than eastbound. This in itself necessitated further changes in operating methods, as the S. P. became more of a delivering than an originating carrier.

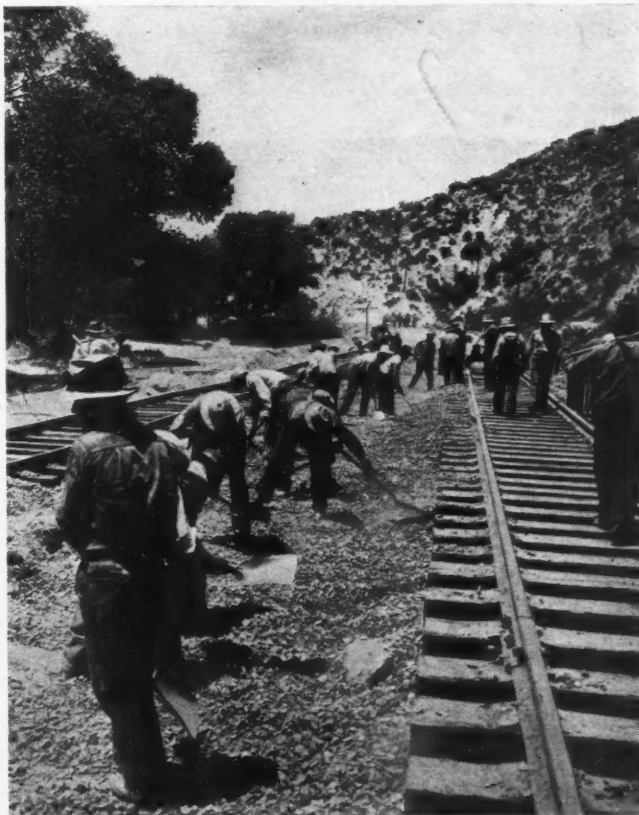
These changes have brought many problems. Greatly increased utilization of cars and locomotives became imperative. Track capacity had to be increased largely by the construction of additional facilities, including especially centralized traffic control and other signaling. The manpower needs soared to heights never reached before, and the conditions that exist in the Pacific Coast labor market have made this situation extremely acute.

Traffic Routes on the Pacific Lines

The Southern Pacific is essentially a single-track railway, but is in the fortunate position of having alternate routes between many points that afford the equivalent of double-track operation. All such opportunities are being used to the utmost in the present emergency, to handle the rush of traffic. From El Paso west, the S. P. has a direct line to Tucson, Ariz., via Deming, N. M., and Lordsburg, 312 miles, while an alternate route is available via the former El Paso & Southwestern, through Douglas, Ariz., to Tucson, 340 miles. Between Tucson and Picacho, 46 miles, only a single track is available, but between Picacho and Wellton, two routes are again available, one of 167 miles via Maricopa and the other 211 miles long via Phoenix.

West from Wellton, the line is double-track to Dome, 18 miles, then single-track to just east of Yuma, 16 miles; and double-track to Araz Junction, 11 miles. From this point to Niland, Calif., the principal main line via Glamis, 59 miles, is supplemented by a second route through Mexicali, Mexico, 96 miles. From Niland to Los Angeles, 185 miles, the line is single track except for about five miles of double track near Los Angeles. However, in the present emergency, the S. P. has made arrangements with its subsidiary, the Pacific Electric, to handle about 100 cars of freight a day in each direction between Colton, Calif., and Los Angeles, 57 miles. Two routes are again available between Los Angeles and San Francisco, the Coast line, via San Luis Obispo, 470 miles, and the Valley line, via Fresno, 483 miles.

Between San Francisco and Portland, Ore., a variety of routes have been pressed into service as this is one of the heaviest traffic lines. Between Oakland, Calif., and Davis, 74 miles, the line is double-track. From Davis to Tehama, a direct single track line runs via



Many New Passing Tracks Have Been Installed

Woodland, 111 miles, and another route is available via Sacramento and Roseville that is 25 miles longer, but is double-track between Davis and Roseville, 31 miles.

Between Tehama and Black Butte, the line is single track, but between Black Butte and Eugene, Ore., the Siskiyou line, 303 miles, via Ashland, and the Cascade line, 278 miles, via Klamath Falls, are available. The Siskiyou line was the main line until the Cascade line was built some years ago, since which time, because of the curvature and grades as heavy as 3.3 per cent, it has been a secondary line. Today, however, it is again a busy railway over which many through freight trains are operated to relieve the Cascade line. A third route is also being used in the emergency, the Alturas line between Klamath Falls, Ore., and Fernley, Nev., thence the main line between Fernley and Oakland. This route is much longer and ordinarily would be considered circuitous, since it is normally used only for freight traffic between the Pacific Northwest and eastern points. Under present emergency conditions, however, it affords additional track capacity when needed and is so used.

The Central Pacific line of the S. P. between Oakland and Ogden, Utah, 780 miles, does not afford alternate routes, but, of the 780 miles, 581 miles are double or paired track, a fact which has been of great benefit in getting trains over this busy Overland route and particularly over the Sierra Nevada range, where the normal difficulties of mountain operation are complicated by unusually heavy snows during the winter. The sections of double and paired track are indicated in Table No. 2.

Getting the Most from Cars

As a step in its preparations, the S. P. ordered 2,849 freight cars early in 1941, and, 4,000 additional cars in

Table No. 2.—Central Pacific Trackage

Between	Mileage	
	Double Track	Single Track
Oakland Pier, Calif.-Sparks, Nev.	243.051	
Sparks Yard, Nevada		0.365
Sparks Nevada-Vista, Nevada	3.438	
Vista, Nevada-Perth, Nevada		90.336
Perth-Rose Creek, Nevada	66.384	
Rose Creek-Weso, Nevada		14.153
Weso-Alazon, Nevada	182.868	
Alazon-Moor, Nevada	12.485	
Moor-Valley Pass, Nevada		24.565
Valley Pass, Nev.-Lucin, Utah	39.031	
Lucin-Lakeside, Utah		55.399
Lakeside-Tresend, Utah	4.859	
Tresend-Bridge, Utah		13.556
Bridge-Ogden, Utah	28.639	
Total	580.755	198.374
	779.129	

June, 1941, of which 1,150 were open-top cars. Of a total of nearly 7,000 cars, approximately 1,000 remain undelivered, but the remaining 6,000 have been of extreme value. To improve the handling of cars and to take care of other transportation matters, the office of general superintendent of transportation was placed on a 24-hour per day basis, with a responsible officer on duty at all times. This required the appointment of a superintendent of transportation and four assistant superintendents of transportation, as well as a large increase in office personnel.

In June, 1941, to intensify the checking of car movements, to minimize delays and generally to insure maximum utilization of equipment, six district car service agents were appointed with headquarters at San Francisco, Calif., Oakland, Sacramento, Bakersfield, Los An-

geles and at Eugene, Ore. Also, during the latter part of 1942, new positions of superintendent of freight car service and superintendent of passenger car service were established to insure the proper supervision over the distribution of freight and passenger car equipment so essential to take care of the tremendous increases in both freight and passenger business which have developed on the Southern Pacific, particularly since December, 1941.

Daily checks are made of all cars on hand for repair or cleaning, hold cars and equipment on industry and housetracks; the car initials, number, kind, capacity, home route, loaded or empty, date received, days detained loading and unloading and the date the car became empty are all recorded. Such reports receive a daily check in the office of the superintendent of freight car service and in division superintendents' offices and action is taken to secure prompt movement or release of equipment. To increase the car supply, special devices for loading automobiles are being removed from about 1,000 box cars to permit their use in general service, while such devices are being placed in the permanent storage position in 750 additional cars for the same purpose.

The loading of merchandise cars is being watched carefully to insure compliance with O. D. T. Order No. 1. Where the minimum tonnage cannot be secured, the traffic is diverted to the S. P. highway subsidiary, the Pacific Motor Trucking Company, or to competing transportation agencies. The S. P. is showing reductions in merchandise loading of more than 7,000 cars a month by these methods. The results of efficient car handling are illustrated in Table No. 3, in which it will be noted that freight car miles and freight car days are not showing increases anywhere nearly commensurate with the increase in traffic, while the average miles per car per day are approaching 60 and are 20 more than they were in 1929.

The S. P. uses oil as fuel in its locomotives, and to put every possible tank car into commercial oil movement,



Construction Materials for Military Establishments Have Accounted for Much Traffic



has released all private line tank cars formerly used to handle company fuel oil. In addition, upon request from Washington, the S. P. has turned over 20 of its own 8,000-gal. tank cars to the fish-oil industry. The number of tank cars under load with company fuel is

Table No. 3.—Car Handling Statistics

		Freight Car Miles	Freight Car Days	Freight Car Miles Per Car Per Day		
Year	1929	983,015,110	25,049,924	39.2		
Year	1939	934,747,537	20,848,085	44.8		
Year	1940	1,038,083,931	20,492,296	50.7		
Year	1941	1,308,555,738	22,767,861	57.5		
10 Months	Period					
"	"	1929.....	835,933,619	20,943,307	39.9	
"	"	"	1939.....	776,063,809	17,389,586	44.6
"	"	"	1940.....	846,708,067	17,049,236	49.7
"	"	"	1941.....	1,084,249,841	18,528,307	58.5
"	"	"	1942.....	1,320,100,584	22,521,537	58.6

under constant supervision to determine if the number may be reduced. The oil companies are also aiding by loading on a 6 or 7-day per week basis instead of the 4 or 5-day basis that was formerly the practice.

For the duration, the car repair practices on the Pacific Lines have been changed and hundreds of cars are now repaired and put back in service that would formerly have found their way to the scrap pile, because, under ordinary conditions, it would be uneconomical to repair them. The only cars that are now retired and dismantled are those that have been severely damaged in wrecks, or those that require unusually extensive rebuilding of underframes or structural parts. Not only are all possible cars repaired, but the percentage of bad order cars is now down to an average of 2.75, as compared with 5.34 per cent as late as January 1, 1941, which at that time was considered an excellent record. Cars not fit for general service are carefully examined for safety and, if found suitable for the purpose, are used for rough loading where only a switching movement or short haul is involved.

The slow and uncertain movement of cars on branch lines has been eliminated as much as possible by the S. P. Having in the Pacific Motor Trucking Company an agency that can supply substitute transportation on a much more efficient basis in many instances, the Pacific Lines began a program of branch-line abandonment in 1931. This program has resulted in the abandonment of 676 miles of non-essential and non-profitable lines so far, of which 202 miles were abandoned in 1942. The proposed abandonment of many additional miles of branches is now up for consideration.

Co-operation With Military Forces

The S. P. has maintained a "co-ordinator's office" since the war began for the purpose of co-operating with Army in handling military traffic. This office is in charge of an assistant general freight agent. In addition, the S. P. has assigned freight representatives permanently to military offices at various points in the San Francisco Bay area. Similiar arrangements are in effect with the Navy, particularly in San Diego.

The Army has set up traffic regulating stations at Ogden, Albuquerque, Spokane and El Paso, to control traffic moving to Pacific Coast ports, but even so, several hundred cars are held a such ports daily. For the purpose of releasing cars from use as railway storage facilities at ports, tariffs have been drafted to permit the railway to place the freight awaiting boats in public warehouses without penalizing the shippers for demurrage or storage charges.

I. C. C. Class Rate Hearings Concluded

WASHINGTON, D. C.

FINAL hearings in connection with the Interstate Commerce Commission's Nos. 28300 and 28310 investigations of the class rate structure and Consolidated Freight Classification were concluded in Washington, D. C., on April 1 after sessions extending over four days. The record in the proceedings, as now submitted to the commission's Division 2, consisting of Chairman Alldredge and Commissioners Aitchison and Splawn, runs to well over 5,000 pages of transcript and some 227 exhibits.

Commissioner Aitchison, who presided at the hearings, ruled that the proceeding would be a proposed-report case, adding that whether or not the proposed report would be submitted by the division remains to be determined. If the division does decide to sponsor the proposed report, he went on, it would have to be understood that the division members retained open minds on the questions which are big ones extending far into the future. Meanwhile, briefs will be due June 30, and there will be no reply briefs.

Suggestions for Briefs

With respect to the briefs, Mr. Aitchison suggested that the parties will be expected to follow that rule of practice which stipulates that a brief should set out the findings which its author thinks the commission should make. He also called attention to the fact that the case involves two distinct questions—one relating to the class rate structure and the other to the classification. Chairman Alldredge suggested that the parties, having in mind "what has happened to the classification," should consider what kind of an order would maintain uniformity if an order establishing uniformity were to be issued.

Testimony subsequent to that reported in the *Railway Age* of April 3, page 673, included additional presentations in support of the Southern Governors' Conference's position in favor of equalized class rates; although there was some Southern dissent from that position. Also, there was some rebuttal evidence offered on behalf of the State of New York, while Dr. Ford K. Edwards, head cost analyst of the commission's Bureau of Transport Economics and Statistics, and Dr. Beatrice Aitchison, associate economist of the Bureau, returned to the witness chair for brief further testimony on their previously-submitted exhibits.

J. T. Ryan, executive vice-president of the Southern Furniture Manufacturers Association, appeared in rebuttal of contentions to the effect that Southern industry generally was not supporting the rate-equalization drive of the Governors' Conference. The furniture industry was vitally interested in the level of class rates, he said, because rates on furniture have for several years been directly related to first class rates. He went on to complain about the refusal of Official-Territory roads to concur in interterritorial rates proposed by Southern roads, attributing such refusal to the "great pressure" exerted by manufacturers in Official Territory. The Southern governors' position was also supported generally by J. C. Murray, traffic consultant for the Arkansas Corporation Commission and for the governor of that state.

Different Southern views were expressed by H. N. Roberts, chairman of the Texas-Louisiana Traffic Bureau, and C. E. Widell, transportation director of the



Tennessee Manufacturers Association. The former, as had Dr. C. S. Duncan, economist of the Association of American Railroads, testified in rebuttal to testimony offered at the Columbus, Ohio, hearing by Dr. John H. Fredericks of Austin, Tex., who had undertaken to show that operations of Texas industries were restricted in their markets by class-rate discriminations. There was objection to the Roberts' statement because it related to intrastate rates in Texas; but Commissioner Aitchison overruled the objection, observing that "obviously going rates within a state have some bearing and are of interest to us."

Whereupon Mr. Roberts described his statement and supporting data as material designed to show that the rate level in Texas is not as high as that of Central Freight Association Territory; or as his counsel—H. C. Barron, general attorney of the Atchison, Topeka & Santa Fe—put it, the purpose was to show that the Texas railroads have published rates to accommodate Texas manufacturers.

Uniformity, if Instituted, Could Not Last

Transportation Director Widell of the Tennessee Manufacturers Association insisted that any attempt to impose a uniform rate structure must fail, because of changing conditions all over the country. Within a few years, he went on, the last vestige of uniformity, as such, would disappear, just as there are now special rates within subdivisions of Official Territory to meet different conditions. Mr. Widell was authorized to speak also for the Southern States Industrial Council, which he insisted was not "railroad-controlled," although the membership included railroad executives.

J. V. Norman, counsel for the Southern Governors' Conference, brought out the fact that Mr. Widell had urged the governor of Tennessee to withdraw from the case, making the request in a telegram, copies of which were sent to other Southern governors. Mr. Norman did not care for this approach to "my clients," but the witness insisted that he had felt free to express his view to his own governor, and also to send the copies of the telegram to the other state executives as public officials.

New York's Position

New York's presentation was made by Charles E. Bell, traffic and transportation specialist, who testified in rebuttal to Dr. Edwards' answer to the previous Bell testimony with respect to the Edwards' cost exhibits. Among other points made by Mr. Bell was his contention that the Edwards' plan of excluding Pocahontas-Region costs from Eastern-District figures should logically require exclusion of figures for the South's four principal coal-carrying roads from the Southern-District costs. The four roads were identified by Mr. Bell as the Clinchfield, Louisville & Nashville, Illinois Central, and Southern; and the witness said they originate 96 per cent of all coal originated by Southern roads. Mr. Bell was followed by B. F. Morris, assistant to vice-president, Louisville & Nashville, who testified briefly in rebuttal of testimony offered earlier in the hearing by E. L. Hart, traffic manager of the Atlanta Freight Bureau.

Recalled by Parker McColleston, counsel for the state of New York, to submit additional data in connection with her study of the territorial movement of carload traffic on May 27 and September 23, 1942, Dr. Aitchison testified that 4.1 per cent of the total carloads involved had moved on class rates, 10.7 per cent on exceptions to the classification, and 85.2 per cent on commodity rates.

Estimated revenue figures indicated that only 6.3 per cent of the revenue would come from traffic moving on class rates, 16.1 per cent from exception-rate traffic, and 77.6 per cent from commodity rates.

Meanwhile there were echoes of the commission's hearing on Capitol Hill where what amounts to a freight-rate-equalization blitz has been carried on by Southern senators and congressmen during the past week or so within which Congress has received interterritorial rate reports from the Tennessee Valley Authority and the Board of Investigation and Research created by the Transportation Act of 1940. On March 31, Representative Whitten, Democrat of Mississippi, noted in a brief House speech that the commission hearings were about to close, and went on to say that "apparently there is an excellent chance for considerable relief to be granted by the commission to the South and other sections of the country."

But Mr. Whitten was not content to rest the long-pull situation on this "excellent chance." He anticipated a continuous fight on the part of Northern interests "to return to the old discriminatory structure." Thus he called for legislation prescribing a uniform basis of freight rates throughout the country; and he thought that Congress should get around to such legislation "before we start looking after the world and placing a bottle of milk on every doorstep."

Congressmen Confident on Outcome

On the following day, Representative Luther A. Johnson, Democrat of Texas, inserted into the Congressional Record's appendix a statement expressing his hope that as a result of the commission's decision (now that the B. I. R. report has pointed the way) "the errors of the past will be rectified as the evidence presented to the commission fully justifies this action." This appraisal of the evidence was made by Mr. Johnson at the Washington hearings which he attended.

"Among other evidence introduced in the proceeding," he said, "is the valuable and interesting information made by scientific and impartial members of the Interstate Commerce Commission staff that, while there is a wide divergence of rates in the manufactured goods in the regions of the country, the costs of rendering rail transportation service varies but slightly between the regions. This affords a sound basis upon which to formulate a national rather than a regionalized freight-rate structure with a single level of rates for manufactured products."

Next came Senator Stewart, Democrat of Tennessee, who made an April 2 Senate speech assailing the statement presented at the commission's hearing on behalf of Governor Thomas E. Dewey of New York, as noted in last week's issue. Mr. Stewart undertook to answer the Dewey statement in detail, and in this he was assisted a bit by Senator Hill, Democrat of Alabama. "It is indeed unfortunate," said Mr. Stewart of Governor Dewey, "that the young man should not have a national viewpoint instead of the narrow and provincial one which gives strong intimation of sectional prejudice."

Between them Messrs. Stewart and Hill agreed that while the class rates are discriminatory against the South and West, the "low rates on raw materials" from the South and West "operate in no way disadvantageously to the Eastern territory, because the Eastern territory, taking advantage of those lower rates, brings in the raw materials from the West and South and Midwest and proceeds to process and manufacture them into finished manufactured goods."



The Modernized Waiting Room of C. St. P. M. & O. Passenger Station at Eau Claire, Wis.

Effective Station Modernization Requires Careful Planning*

Many factors must be considered in carrying out such projects as are necessitated now by special conditions and in making studies for future execution

THIS report on the modernization of passenger station buildings is based on information concerning current trends in this field and on the use of modern materials that were available until recently for this purpose. In presenting this report, it is realized that, except for extraordinary cases, expenditures for the alteration and improvement of existing passenger stations or the construction of new stations are out of the question at the present time, for in the face of the conditions existing as a result of the war, neither men nor materials can be spared for such projects.

However, the dislocations of passenger transportation brought about by the construction of large army camps and the development of vast new war material plants have given rise in not a few instances to the necessity for providing new or additional passenger station facilities in locations where the existing accommodations are entirely inadequate. Therefore, this report is offered for the purpose of providing a record of developments at the time that the outset of the war effectively stopped such operations, as well as to provide information that may be of value in the construction of such emergency facilities as are required currently.

*From a report prepared by a subcommittee of the Committee on Buildings of the American Railway Engineering Association. J. P. Gallagher, architect, New York Central, Buffalo and East, was chairman of the subcommittee.

The modernization of station buildings is a vital and necessary step that is in line with the recent trend, so widely in evidence in the United States and Canada, toward the modernization and streamlining of locomotives and trains. The "streamliner," beautifully designed both inside and out in appropriate modern style, offers many added comforts, a faster schedule and an attractive environment for the patron. Too often this train stops at stations with crude outmoded facilities representative of an early era of railroading. Railroad station buildings have often been neglected in essential maintenance, and this neglect accentuates their unprepossessing appearance and puts them entirely out of keeping with the appearance of the new trains. It is obvious that they should provide an equally pleasing appearance and equivalent accommodations, but the changes in train equipment have far surpassed those in passenger stations.

The railroad station, which at one time was the center of activities of the community, should be restored to its rightful place, a building to encourage the civic pride of the town. The value of this community pride and the advertising value to be derived from a station of both beauty and convenience should be given recognition. The strong psychological appeal attached to an up-to-date station, coupled with the speed, comfort and safety of modern trains, will help the railroads to maintain a dom-

inant position in mass transportation in competition with air lines and buses.

Another factor to be considered in favor of remodeling the railroad station is the fact that highly modern accommodations are provided for their patrons by competitive air lines and buses. Some of these have been built in extreme modernistic styles in an effort to derive the full advertising value which such treatment affords, with large signs to attract the attention of the public. The extreme contemporary style is not recommended for railroad stations since its life is too limited for these stations. The architecture should be governed by the local environment, such as geographical and topographical conditions, the materials available, the character of the buildings common to the community, and the particular requirements of the individual station facility.

This report deals with the modernization of existing station buildings. Nevertheless, the majority of factors covered should be given full consideration in developing designs for new facilities, to the end that all outmoded features of the past will be eliminated. This consideration is particularly important where standard plans for buildings have been used indiscriminately.

Careful Planning Necessary

The problem of modernization of existing buildings should be analyzed thoroughly as to the scope and cost of the work to be undertaken. The flexibility of the existing plan and design and its adaptability to obtain the desired result will affect the amount and nature of the work to be done and the total cost of the improvement. Where extensive changes are required, the estimated cost of the improvement should be compared to that of a new building. Because of structural or architectural features, physical condition, or size, some old buildings will not lend themselves favorably to modernization. In such cases, consideration should be given to a new structure instead of an expensive modernization, which, on completion, would not be as effective as new construction involving approximately the same cost.

When the permissible expenditure is limited, the scope of the work can sometimes be limited to a few essentials and, at the same time, a satisfactory measure of modernization can still be achieved. No sacrifice should be made in carrying out any reconstruction that may be necessary to eliminate structural defects. Structural soundness, particularly of the foundations, should be determined by a careful inspection at an early stage. This inspection should disclose, in the case of frame construction, whether termite activity is present and, if so, proper means should be taken to stop it and to correct any weakness that has been caused by it.

Whenever practicable, a modernization project should be complete to the point of including any necessary changes in the floor plan, interior and exterior treatment and design, lighting, heating, furnishings and landscaping.

How Thorough a Job Is Justified?

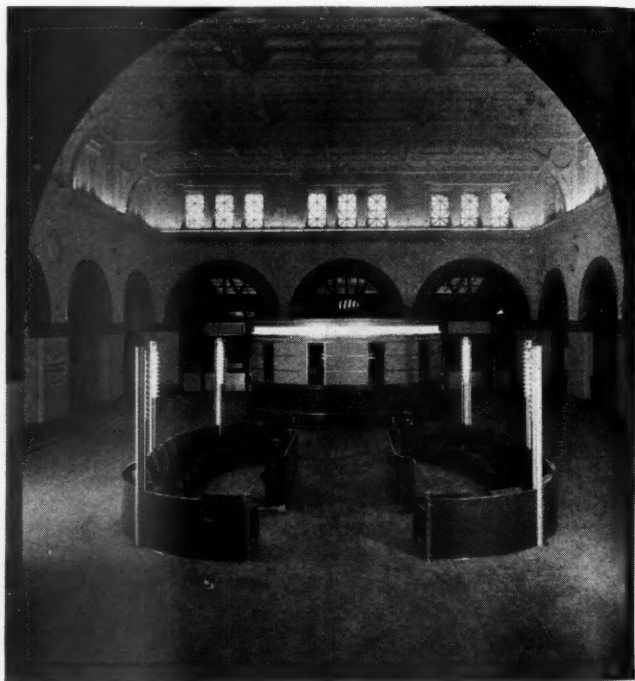
This work will vary with each building and as a general rule will be limited by the amount of money granted in the authority for expenditure. The need of each building for modernization, the character of its surroundings, its future usefulness, and the amount of revenue derived from the community should determine the extent of the work to be done. In some buildings a change in decoration alone, particularly from drab standardized colors to modern bright combinations, will accomplish all the modernization that is warranted at that

point. In planning more comprehensive projects, consideration should be given the various matters discussed in the following paragraphs.

Modernizing the Floor Plan

Readjustment of the floor plan will often be necessary to provide adequate areas to handle the character and volume of passenger traffic to best advantage. A general waiting room for the passenger station is recommended, and where there are now separate waiting rooms for men and women, it is suggested that they be consolidated. Separate waiting rooms for colored persons must be provided where required by state law.

The ticket office may need modernization. This facility need not be a separately enclosed room. Opening the office into the waiting room, with only counters and railings to set off the enclosure, creates a more spacious effect and also places the agent in closer relation with the public. It means that he will of necessity maintain his office in a presentable condition. Counters should be ample in size and should be equipped with drawers, compartments, racks, shelving, etc., to take care of tickets, cash, tariffs, records, stationery, time tables and the sup-



General View of the Redecorated and Refurnished Waiting Room of the Milwaukee's Station at Minneapolis, Minn.

ply of advertising literature. Every article should be close at hand but generally out of view of the public. Counter tops can often be completely open or, if desired, bank-type glass or grille rails may be installed on top of the counters, with suitable openings to meet or serve patrons. Where operating conditions demand the closing of the office while the waiting room remains open, drop sash or grilles should be provided to segregate the ticket office from the waiting room.

Toilet rooms should be brought up to modern sanitary requirements. First, they should be located within the building, with convenient access from the waiting room. Locating the rooms for men and women adjacent to each other often results in economy in placing the plumbing, but when this is done it is desirable to keep the entrances widely separated and properly screened.



Existing toilet rooms should be investigated as to capacity requirements. Where stations are used also as rest stops for buses, the size should be adequate for the average peak load requirements of both services. In many stations the remodeling of the toilet facilities will have the effect of improving them immeasurably and will do away with the most serious objection to the station. Old-style toilet fixtures should be replaced with modern units. Individual urinal fixtures should replace old unsanitary urinal troughs. Modern flush valves, if water is available under sufficient pressure to operate them properly, are preferable to gravity or pneumatic tank supplies for closet or urinal flushing. Lavatories should always be provided in sufficient number. It is of utmost importance, also, that soil and water lines be inspected for size and condition. In many cases it will be desirable and perhaps necessary to renew all plumbing lines. In conjunction with the plumbing layout, it is desirable that a sink be provided in a service or janitor's closet. This last requirement is a necessary component of a modern station plan.

Men's Smoking Rooms Not Needed

Existing smoking rooms for men can be eliminated from the modern plan. Smoking rooms for women may be retained, but their size can often be reduced. In the new arrangement, this room becomes a retiring room or powder room. Where freight, baggage and express rooms are provided in combination with passenger stations, they should be adequate in size. On the other hand, these rooms will often be found unnecessarily large for handling present fast freight and pick-up and delivery shipments. Means of direct access to these rooms from the ticket office or waiting room is highly desirable.

This should also be true of the heater room, particularly where the heater is hand-fired. The heater room in some buildings will comprise an addition to the plan, due to the installation of a central heating plant in place of stoves. A separate enclosed room is most desirable, with ample fuel storage space for the type and amount of fuel to be used.

In their interior appointments, passenger stations too often reflect the period in which they were built. Where the present interior treatment is basically along pleasing lines, the addition of an attractive color scheme will accentuate this. Painting the walls and ceilings with modern colors and adding a new floor of colorful modern materials will often create a satisfactory appearance without structural changes.

Often it will be desirable to create a new pattern for the interior treatment. Bulky cornices and moldings, wide decorative trim around openings and high base molds, once the rule, were often of poor design and are dust collectors. They should be replaced with plaster or other new materials now available. The application of these materials should be consistent with good architectural design. Well-designed moldings, narrow trim, low sanitary bases, and architecturally correct doors and windows, all in decorative colors, will bring an old interior up to pleasing present-day standards.

Treatment of the walls with decorative wall board in attractive color combinations, with metal or plastic moldings laid out in an architectural design of horizontal or vertical motifs, is recommended, particularly where the finish is of wood, consisting of matched or beaded or "V"-jointed material. This has a common finish and in smaller stations provides a good base for nailing the applique material. It is also practicable to cement decorative wall board to the existing wall. Beveled panels of

the same or similar materials as that applied to the walls can be installed on the ceilings where plaster is not desired. Both decorative wall board and beveled panel boards are obtainable in pleasing colors.

Floors in old stations are often drab, uninteresting, badly worn and unsanitary. The modern trend is toward colors in the floor, and materials such as asphalt tile, rubber tile, linoleum, and other similar materials may be used. These materials are easily installed over existing floors, but careful attention should be given to their cleaning and maintenance. They do not have the longevity of terrazzo or quarry tile which are recommended above all others. Where feasible, the wood floor framing should be removed, and concrete slabs installed. The finish can be a marked-off colored cement or any of the previously-mentioned materials, selected to fit the budget.

Rest rooms with floors of terrazzo or ceramic tile; wall bases of coved, flush, glazed tile; glazed tile wainscots, 4½ to 5 ft. high; and plaster walls and ceilings are recommended. Sanitary metal, marble or structural glass toilet stalls should be used. The toilets should be well ventilated and lighted; the use of glass block in outside walls will provide the maximum of daylight illumination. In the toilets of small stations where tile might not fit the budget, a hard cement plaster should be applied to the walls. A coved cement base and a marked-off cement-finished floor with integral waterproofing and coloring are also acceptable.

Fluorescent fixtures attached to or suspended from the ceiling are recommended for lighting the new interior. The effect, with white light tubes, is pleasing and the use of such fixtures is gaining in popularity. Their power consumption is less than that consumed by an equivalent amount of incandescent lighting, although they are not entirely satisfactory from a maintenance standpoint. The public expects to find this type of lighting in a modern project. It is expected that continued development in fluorescent lighting will correct any shortcomings it may have from the maintenance standpoint. Indirect, concealed lighting is highly desirable but costs considerably more for installation, operation and maintenance. In all projects, the electric fixtures, whatever the type, should be selected to complement the design of the interior.

Central Heating Recommended

Unfortunately all stations are not equipped with modern heating plants. The old-fashioned stove, located in each room of the station, is not satisfactory, nor is it consistent with this streamlined age. Its removal and the installation of a central heating system are of the utmost importance. A steam heating system with radiators can be selected, or one utilizing unit heaters, hot water, or forced warm air. Exposed pipes are to be avoided in the rooms open to the public. Where a basement is not available, pipes or ducts can often be carried through the attic space or that provided when ceilings are suspended. Radiators should be of modern types, although it is acceptable to use old radiators when they are covered with modern metal shields. Recessed radiators are efficient and very practical where space is an important factor. Where warm air-ducts under pressure are used, registers can be located in the ceiling, either in combination with the electric light fixtures or separated. A diffusing fin-type register should be used.

If coal is used, it is advisable to install automatic stoker firing, for in a few years the amount of fuel saved will equal the cost of installing the automatic-fired central heating system. Where low gas rates are available, a gas-fired heating plant can be used, or, for the smaller



station, vented gas-steam radiators are acceptable. Air conditioning may be considered in certain areas of larger stations, such as restaurants or other concessions where the business done is heavy enough to justify the expense of installation and operation.

Furnishings Must Be Modern

Furniture for a remodeled station should also be consistent with the adopted style of the interior. Chrome and upholstered lounges add color to the waiting room and can be arranged in pleasing groups that create an atmosphere of friendliness and cheerfulness, although these lounges do not have the durability of wood settees which are recommended, in part at least, for larger stations. Wood settees, however, should be modern in design, preferably with flush panels, and should be both comfortable and easily maintained.

Furniture for ticket offices should likewise harmonize with the interior design. New desks of wood or metal, with flat tops in natural wood, green or gray finish, should be installed in remodeled ticket offices. Ticket counters should be carefully designed, using materials that harmonize with the walls. Glass blocks and wood veneers can be used attractively. Desk-top linoleum, which is available in various colors, makes a very satisfactory finish for the counter top.

Telephone booths and lockers for public use are necessary accessories in any passenger station. Where feasible, they should be located in recesses, in furred-out wall space in the waiting room, or in alcoves, and made to harmonize with the interior treatment. New types of locker cabinets and telephone booths are available.

Where newsstands and soda fountains or the like are provided, they, too, should harmonize with the interior treatment. Signs, bulletin boards, train schedule boards, etc., should be neat and compact and placed in glass-enclosed cases, located with discrimination. Advertisements to encourage railroad travel can take the form of artistic murals or photographs used as decorative adjuncts on walls that otherwise might lack interest. Drinking fountains should be of the electric cooler type which are now available in beautiful cabinets suitable for the modernized station. The fountain should be placed in a convenient location in the waiting room.

Remodeling the Exterior

Changes that will be found necessary in the exterior appearance of stations undergoing modernization will vary with each building. The cost factor will often determine the amount of work that can be done, even though additional work might be desired. Some station buildings are pleasing or attractive in themselves although they may not conform to contemporary styles in architecture. Under such circumstances salient parts and basic lines should be retained with minor alterations, supplemented by a program of redecorating. If the building is of masonry, the washing of the outer walls with chemicals or the painting of the doors, windows, cornices, etc., will often aid greatly in improving the appearance and in adding a cheerful and inviting atmosphere. It is particularly important that care be used in selecting the colors for each building, this being preferable to slavish adherence to a limited number of "standard" colors.

It will sometimes be necessary or desirable to renew or add doors and windows and their frames. These should be designed to conform to the style of the modernization adopted. Where additional ventilation is not

required, it is possible to use glass blocks in large panels to good advantage to create a cheerful atmosphere both inside and out.

Of foremost importance in a remodeling program is a study of the roof, with both its condition and its appearance in mind. Naturally, the roof should be made watertight before any interior work is undertaken. Shingles applied on hip or gable roofs should be more colorful than those used in the past. Harmonious blends of several different colors of shingles will make roofs more attractive and enhance the appearance of the entire building. Fire-resistant shingles are available in a wide color range and are recommended. Clay tile and slate are highly acceptable where conditions permit their use.

Stations constructed of wood covered with narrow wood shingles, or boards and battens and wide trim boards, can be improved by applying a brick or stone veneer. Where the cost of this method is considered excessive for the particular project, fire-resistant shingles or clap boards may be applied to the walls. Wood shingles with a wide exposure and alternating overlapping of shingles at the building corners and hip roof ridges give a pleasing appearance. The use of flat, wide trim should be avoided where a building of character is desired. Instead the trim should consist of narrow molds adequate for coverage of the door and window frames. On other buildings, clap boards or drop siding may be used to harmonize with the design or architecture. Colonial type wood shingles, as well as other parts of the building, such as doors, windows, cornices, etc., should be painted in light appropriate colors.

Exterior Finish

The repainting of the wood siding of a station will often fail to produce the desired surface or effect because of an accumulation of paint from many previous paintings. Even after burning off the old paint, which is an expensive process, the siding may not be as pleasing as desired. In this case, asbestos-cement shingles and flat sheets can be used successfully. A shingle with a glazed surface should be used, however, because it can be washed satisfactorily.

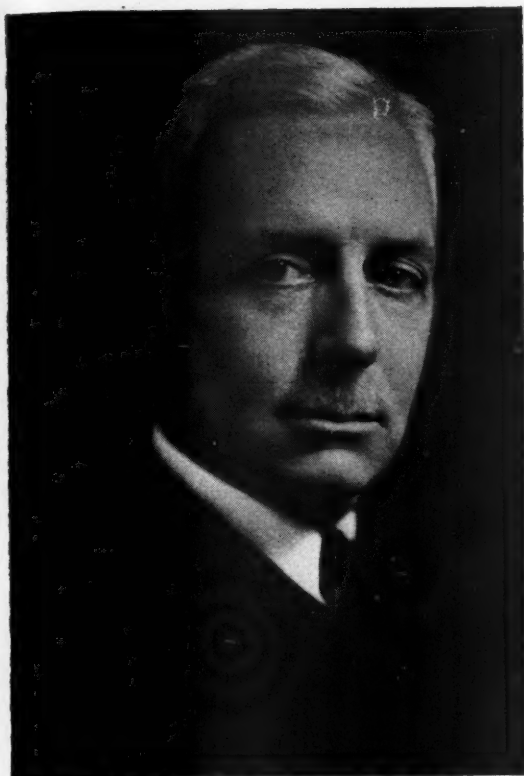
The remodeling of outside illumination is important for improved lighting conditions at night. The building should be easily recognizable after dark. Lanterns located at the entrances add a decorative effect to the exterior that is noticeable both day and night. Electric advertising signs should be placed with discrimination so as not to detract too much from the architectural design.

Where sufficient land is available or can be acquired to meet the requirements, parking facilities should be provided if the business of the railroad at the particular location is sufficient to warrant an investment for that purpose. Parking areas should be provided with a hard-surface paving or finish, and should be properly drained. Landscaping should be provided wherever possible. Shrubs planted around the building should be carefully selected for an appropriate species that will give the desired effect. Grass plots are desirable and should be laid out without detracting unduly from necessary parking areas and platforms.

Generally, any study of a station that is made with modernization in view should include an investigation of the platforms, giving consideration to their condition and the adequacy of their length for accommodating the longer trains. Extensions should be made where necessary and repairs and resurfacing should be carried out if required. Platform illumination should also be checked.

Baldwin Chooses New Executives

**Chairman Brinley will continue to direct company's affairs
while President Kelly assumes responsibilities of operation**



Charles E. Brinley



Ralph Kelly

AT a meeting of the board of directors of the Baldwin Locomotive Works held at Eddystone, Pa., on April 1, Charles E. Brinley, president, was elected chairman of the board, a newly-created position, and Ralph Kelly, executive vice-president, was elected to the presidency of the company. Mr. Brinley will remain chief executive officer and will continue general supervision and direction of the company's affairs. Mr. Kelly, who has been principal operating officer of the company since March, 1942, will continue to have this responsibility and will be in charge of the active management of Baldwin's various divisions and wholly-owned subsidiaries. Other staff changes have also been made, these being reported in the Supply Trade News columns elsewhere in this issue.

Mr. Brinley was elected to the presidency of the Baldwin Locomotive Works in December, 1938. Earlier in that year, when the company was reorganized under the Federal Bankruptcy Act, he had been elected a director and member of the executive committee, and for a short period following the resignation of G. H. Houston when the presidency of the company was vacant, he served as acting vice-president with full executive powers. Prior to his association with Baldwin, Mr. Brinley had been associated, since 1901, with the American Pulley Company of Philadelphia, Pa., a concern founded by his

father. He was born in Philadelphia on February 25, 1878, and had his higher education in mechanical engineering at Yale University, receiving his bachelor's degree in 1900, and a degree from the Sheffield Scientific School in 1901. Mr. Brinley is a member of the American Society of Mechanical Engineers, a director of a number of well-known industrial, public utility and insurance companies and a trustee of the Drexel Institute of Technology.

Mr. Kelly was graduated from Harvard University in 1909 and, in the same year, became associated with the Westinghouse Electric & Manufacturing Company as an apprentice in its power engineering department. He served as a lieutenant in the United States Navy during the first World War and in 1920 rejoined the marine engineering department of Westinghouse, subsequently becoming the engineering manager of the company's southwestern district, with headquarters at St. Louis, Mo. He was advanced to manager of that district and later to manager of the central district at Pittsburgh, Pa. In 1934 Mr. Kelly was named vice-president in charge of the operating division of Westinghouse and, in 1938, he became vice-president in charge of sales. He left Westinghouse in March, 1942, to become executive vice-president and a director of the Baldwin Locomotive Works.



Electric, Steam or Diesel-Electric*

An outline of the factors involved in the selection of railroad motive power

By A. G. Oehler and H. C. Wilcox
Associate Editors, Railway Age

FOR 60 years the steam locomotive was without competition, as a form of motive power, on American railroads. Its first serious competitor, the electric locomotive, appeared in 1895 and during the following 40 years displaced steam in specific applications. The reasons for this were that the electric locomotive possessed certain inherent advantages that made it both desirable and economical to adopt at the time it was done. That electrification did not completely displace steam operation was because experience demonstrated its limitations. The Diesel-electric locomotive made its initial appearance in this country—in switching service—in 1925, but like the electric locomotive almost 10 years went by before the industry accepted it as a competitor. From 1935 to date, the Diesel-electric forged ahead more rapidly than either of its competitors—electric or steam—in any similar period. There were many reasons for this. Outstanding among these were that the Diesel-electric has most of the advantages of both electric and steam motive power without too many of its disadvantages, plus an appeal to the public that increased the revenues of the railroads when they were desperately needed. What, now, are the limitations of the Diesel-electric locomotive and to what extent can either the electric or Diesel-electric be expected further to encroach upon the dominions of steam?

One hundred years of railroading have demonstrated that, in the final analysis, any controversy that exists as to which is the best type of motive power must be decided upon the basis of sound economic principles. Experience has also demonstrated that there is no universal formula by which the user can determine whether one or

the other type should or should not be used, but there are certain fundamentals upon which agreement can be reached, through the application of which a final choice may be made. No application of these fundamentals can be made until the problem is clearly stated.

Historical Background

The steam locomotive came into being more than 100 years ago as a competitor to the horse and the canal boat. From that point it grew in size and power and the railroad grew with it, including the enginehouse, the shop, water and fuel services, and all facilities required to maintain and operate steam power. Most railroad operation is designed around the characteristics and requirements of the steam locomotive.

The electric locomotive was first applied to trunk line railroad service in 1895, when it was used to eliminate a smoke hazard by hauling trains with their steam locomotives through the Baltimore & Ohio tunnel at Baltimore, Md. From this beginning its use was extended to the operation of congested city terminals, where smoke elimination was important, to operation of trains on heavy grades (including tunnels), to suburban passenger service requiring short headways and rapid acceleration where smoke elimination was also a factor, and to heavy traffic general service lines where the added cost of the power distribution system could be justified by savings in operating cost and improved service.

The Diesel-electric locomotive was developed from the rail car, the latter having been used for several years to take care of diminishing traffic on branch lines. The first locomotive to be used on American railroads in 1924 was in fact a rail car equipped with a heavy-duty Diesel engine and electric transmission. From this beginning the application of Diesel-electric locomotives to switching service has been extended until a railroad purchase of a new steam switcher is exceptional.

Road application of Diesel engines began with lightweight passenger trains in which the first car contained baggage and mail compartments in addition to the space

* Abstract of a paper "Factors Involved in the Selection of Railroad Motive Power," presented at the 1943 annual meeting of the American Institute of Electrical Engineers.

occupied by the power plant. These trains were increased in size and the motive power grew from one to two and finally to a three-unit Diesel-electric locomotive. Four-unit locomotives are used in freight service and some Diesel-electric locomotives are used interchangeably in freight and passenger service.

A common error made by transportation engineers, for reasons best known to themselves, in dealing with the selection of motive power has been an approach to the problem primarily on the basis of substituting one type of motive power for another, whereas actually the ultimate solution may be an economically sound use of combinations of different types—each in the place and to the extent to which it is best suited.

What the Problem Is

The first requisite is to state the problem; in simple terms it is how to decide whether or not to use steam, Diesel-electric or electric motive power or combinations thereof, for performing the required functions of a railroad. A study of the problem may, for example, indicate that to do a specific job a railroad should use Diesel switchers, Diesel road passenger locomotives and steam freight locomotives or possibly Diesel switchers and electric road passenger and freight power. It is quite possible that to the man with an open mind the very effort to prove the case for one type of motive power as against another may demonstrate the logic of utilizing combinations. Once basic data have been collected and studied, an equal familiarity with the characteristics of the three types of motive power should be acquired. With that end in view a table has been prepared by way of assist-

coal is less than this, no savings in fuel cost can be made by electrifying a steam-operated railroad. For Class I railroads the average cost of coal delivered to the railroad is \$2.68. To this must be added the cost of distributing it to the coaling plants and loading it on the tender. The cost of handling coal from the car to the locomotive (including fixed charges) is about 15 cents per ton. Obviously, the railroads which are remote from sources of supply pay a greater hauling charge than those with short hauls from the mines.

Fuel costs for steam and Diesel-electric locomotives can best be compared from performance records. One railroad using both types for freight service reports a fuel cost of 33 cents per mile for coal-burning steam locomotives and 28 cents per mile for Diesel-electric locomotives in the same service. These figures favor the steam locomotive somewhat, since in this instance the Diesel-electric locomotives are operated in high-speed service, while the steam locomotives are used at lower rates of speed.

In passenger service one road reports fuel costs of 17 cents and 10 cents for steam and Diesel-electric locomotives, respectively, a saving of 37.5 per cent. In two other cases the savings reported are, respectively, 16.3 and 39.8 per cent.

It is in switching service that the Diesel-electric locomotive makes the greatest saving of fuel. Hourly fuel costs taken from a recent report are set forth in the table.

Comparative Steam and Diesel Fuel Costs in Switching Service

	Hourly Steam Fuel Costs	Hourly Diesel Fuel Costs	Saving
Railway A—600-hp. Diesels	\$0.801	\$0.224	\$0.577
Railway B—600- and 1,000-hp. Diesels..	1.120	0.370	0.750
Railway C—1,000-hp. Diesels	1.0636	0.3267	0.7369

Classification of Motive-Power Characteristics

	Electric		Steam		Diesel-electric	
	Advantage	Disadvantage	Advantage	Disadvantage	Advantage	Disadvantage
(1) Operating cost:						
(a) Fuel	x			x	x	
(b) Water		x		x	x	
(c) Lubricants	x		x			x
(d) Enginehouse expense	x			x	x	
(e) Supplies (of no great importance)	x			x	x	
(f) Repairs	x			x	x	
(2) Fixed charges:						
(a) First cost		x	x			x
(b) Depreciation	x		x			x
(c) Interest, taxes and insurance		x	x			x
(3) Operating characteristics:						
(a) High acceleration	x			x	x	
(b) Overload capacity	x			x		x
(c) Availability	x			x	x	
(d) Flexibility	x			x	x	
(e) Use factor		x		x	x	
(f) Freedom from complete failure		x		x	x	
(4) Special features:						
(a) Smoke elimination	x			x	x	
(b) Damage to roadbed	x			x	x	
(c) Merchandising appeal	x			x	x	
(d) Dynamic braking	x			x	x	
(5) Possibility of eliminating facilities:						
(a) Operating	x			x	x	
(b) Maintenance	x			x	x	

ance. The reasons why any given characteristic is considered an advantage or a disadvantage follow.

Fuel

When the cost of coal delivered to the tender is four dollars a ton, the cost of coal is about the same as the cost of power required for an electrified line. This relation will vary considerably depending upon the power contract, the amount of transmission and distribution losses, etc. But experience indicates that if the cost of

There are three reasons for this. One is the inherently high thermal efficiency of the Diesel engine. Another is the relatively high standby losses of the steam locomotive and the third is the electric transmission which permits the Diesel engine to operate near its full-load rating at all locomotive speeds.

Water and Lubricants

The average water cost for a steam locomotive is approximately ten per cent of the fuel cost. On Diesel-electric and straight electric locomotives, water is a relatively small item, even in passenger service which requires oil-fired boilers on the locomotive for train heating and for the steam-ejector type of air conditioning. The amount of water used for this purpose is only about one-tenth of the total water used for all purposes by a steam locomotive in the same service. In freight and switching service, the electric locomotive uses no water and the amount needed by the Diesel-electric locomotive is practically negligible.

An empirical method of approximating lubricating costs for Diesel-electric locomotives is to assume that the consumption of lubricating oil is from 1½ to 3 per cent of the fuel oil while the cost per gallon is ten times as much. Thus the cost of Diesel-electric lubricating oil is from 15 to 30 per cent as much as the fuel cost. Steam locomotives doing the same work will consume lubricants costing about half as much as those used by the Diesel-electric and accumulated experience shows that the cost of lubricating electric locomotives is much less than that for steam.

Enginehouse expense is a disadvantage of the steam



locomotive. In road service it may be from 1.6 to 4 times as much for the steam as for the Diesel-electric locomotives, while in switching it may be from 5 to 12 times as much.

Comparative Steam and Diesel Enginehouse Expense on Roads Using Both Types of Power

	Steam	Diesel-electric
Freight service, per mile.....	\$0.04	\$0.01
Passenger service, per mile.....	0.02	0.012
Switching 1, per hour.....	0.393	0.038
Switching 2, per hour.....	0.2279	0.0427
Switching 3, per hour.....	0.47	0.04

Electric locomotive enginehouse expense is less than that of the Diesel-electric, since it is essentially a Diesel-electric without the Diesel engine. The high steam costs arise from the fact that the steam locomotive requires periodic attention for the cleaning of flues, boilers, grates, etc., with the resulting need for resteamings and attention to fires.

Locomotive supplies is an item included in all locomotive cost accounting but it is a small one and there is so little difference for each type that is not a controlling factor.

Smoke Elimination

Electric locomotives are completely effective in eliminating smoke. They have been responsible for the transforming of smoking yards into first-class residential districts, and for the safe operation of trains through long tunnels.

Diesel-electric locomotives produce little smoke, but their exhaust gas and the fuel they carry has precluded their use in some terminals.

Electric and Diesel-electric locomotives which have no unbalanced weights in their wheels do not produce what is known as dynamic augment. This adds to the problem of steam locomotive design for high speeds, and in the case of slipping wheels may result in track stresses sufficient to kink the rails. The smaller wheel diameters and lower center of gravity used with Diesel-electric locomotives increase shearing stresses at the head of the rail, but this is largely offset by lower axle loads. It is generally accepted that the electric and Diesel-electric cause less damage to roadbed than steam locomotives, but much work is being done to improve the characteristics of the latter at high speeds.

Merchandising Appeal

Diesel-powered streamlined trains were introduced in 1933 and the great increase in passenger traffic between 1933 and 1941 is good evidence that people like them and will desert the highway for them. A part of the credit for this shift must be given to fare adjustments and a part to air conditioning, but undoubtedly the Diesel-electric locomotive deserves its share.

At a meeting of the American Association of Passenger Traffic Officers in November, 1941, an attempt was made to evaluate the influence of passenger service on freight traffic. A poll of railroad traffic officers showed that none think it is of no importance and 84 per cent of those questioned feel that the influence of passenger service is either a major or an important factor. A somewhat different attitude is shown by traffic managers who buy transportation. Almost half of a number of these men who were questioned said that the great bulk of freight traffic is routed without consideration for passenger service. Even though the latter group is most

nearly correct, it is obvious that passenger service is an important influence.

Dynamic and Regenerative Braking

Dynamic braking has been developed for the Diesel-electric locomotive. This consists of using the traction motors as generators and dissipating the energy generated in resistors. The brakes are designed to hold at a definite speed on a descending grade, the same train weight that the locomotive can haul up the same grade at the same speed. In actual operation, on descending grades, train weight may be heavier and speeds maintained are higher than on the same grade ascending, so that for controlling such trains some assistance for the dynamic brake is required from the train air brakes. In trials on various grades, the amount of train air braking required was reduced to approximately one-fourth of that required by conventional braking with train air brakes. This represents an important reduction in brake shoe and wheel wear and reduces damage to wheels by overheating. It is also a safety device.

The electric locomotive is capable of employing regenerative braking—of returning the power generated in the motors to the power system. It is definitely superior to dynamic braking for improving train operation since it allows closer speed regulation on the down grades and in actual practice on heavy grade lines it makes an appreciable saving of the electric energy required by the railroad.

Fixed Charges

In the matter of fixed charges against operation, we are concerned with two major factors; first cost and service life. Originally, the Diesel-electric locomotive was at a distinct disadvantage with respect to steam because of high initial cost. However, progress in design and production methods, as well as an increased volume of production, has reduced the initial cost of Diesel locomotives to approximately \$87.50 per engine horsepower as compared with approximately \$35.00 per cylinder horsepower for steam.

The cost of an electric road locomotive is about \$65.00 per continuous horsepower at the rail. To this must be added the cost of the power distribution and contact system, but no close estimate of its cost can be made since, roughly speaking, the same system that serves ten locomotives can also serve a hundred. If a substitution for steam of Diesel-electric or electric locomotives is being considered, some credit should be given to the replacing units for fuel, water and ash handling systems and such enginehouse and shop facilities as are not required by electric or Diesel-electric power. In any plan for improvement some real thought should be given to the elimination of terminals made possible by improved locomotives and better operation.

Depreciation

To become involved here in any discussion of the depreciation question would serve no good purpose. Experience with steam and electric locomotives has demonstrated that a depreciation rate somewhere in the neighborhood of 4.5 per cent serves well the purposes of the railroad industry's present methods of accounting. In the matter of Diesel-electric locomotives the question of depreciation has been approached in a somewhat different manner than has been the case with steam. By this is meant that recognition has been taken of the fact that a Diesel-electric locomotive is, for example, 40 per cent

Diesel engine, 40 per cent electrical equipment and 20 per cent mechanical equipment. Because of this fact three depreciation rates might be desirable; one to the mechanical equipment, one to the electrical equipment and one to the Diesel engine.

Years of experience with both mechanical and electrical equipment, such as is now used on Diesel-electric locomotives, has simplified the problem of establishing depreciation rates. The unknown factor has been that of the service life of the Diesel engine. It is quite probable that time will demonstrate that the economic service life of railway type Diesel engines may be longer than was anticipated in the early days of their service on the railroads. To summarize this matter of depreciation without offering any conclusion, it may be said that individual roads have established depreciation rates for Diesel-electric locomotives all the way from 4 to 10 per cent annually.

High acceleration is an inherent characteristic of both Diesel-electric and electric locomotives, and a characteristic which has been lacking in steam locomotives, particularly of older designs.

Overload Capacity

The electric is the only one of the three types of motive power which has real overload capacity. Steam locomotive horsepower depends upon mean effective piston pressure and speed, and horsepower outputs near the maximum are obtainable over only a short portion of the speed range.

The maximum horsepower output of a Diesel-electric locomotive is dependent upon the capacity of the Diesel engines. It cannot be increased above this amount but the electric transmission permits the use of this horsepower over a relatively large part of the speed range.

The relation of rated horsepower to maximum horsepower of an electric locomotive is shown in Fig. 1. Because the electric locomotive can draw from the power supply lines up to the heating limits of the motors, it can for short periods deliver horsepower outputs which are almost twice the continuous rating. Thus a locomotive having a continuous rating of 4,860 hp. at 65 mi. p. h. may be capable of outputs at the driving wheels up to 9,000 hp. when the service conditions demand. In so far as performance is concerned, it may be looked upon as the ideal locomotive. In actual practice, an electric locomotive having 72 per cent of its weight on drivers can exert enough tractive force to slip its drivers at any speed.

To obtain this overload capacity, operation must be so arranged that the motor temperatures are well below maximum permissible values before the extra horsepower is called for. One overload must not be superimposed on another. Within the limits of its horsepower capacity the Diesel-electric locomotive is similarly limited.

Availability

When a steam locomotive arrives at its terminal, it requires certain servicing and repair operations. A study recently made by one railroad indicates that steam freight locomotives are in service approximately 12 hours out of a 24-hr. period; that they spend 8 hours at terminals undergoing servicing and repairs and spend the other 4 hours waiting for something to do. This corresponds to an availability factor of 66⅔ per cent. As compared with this figure the Diesel-electric locomotive will have an availability factor of possibly 90 per cent and the electric locomotive perhaps 95 per cent. Avail-

ability of any type of motive power can be improved by the intelligent use of modern terminal facilities.

Flexibility

The flexibility of Diesel-electric locomotives is an "advantage characteristic" brought about by the fact that it is built in the form of "packaged power"; for example, in 1,000- or 2,000-hp. units, from 1 to 4 of which may

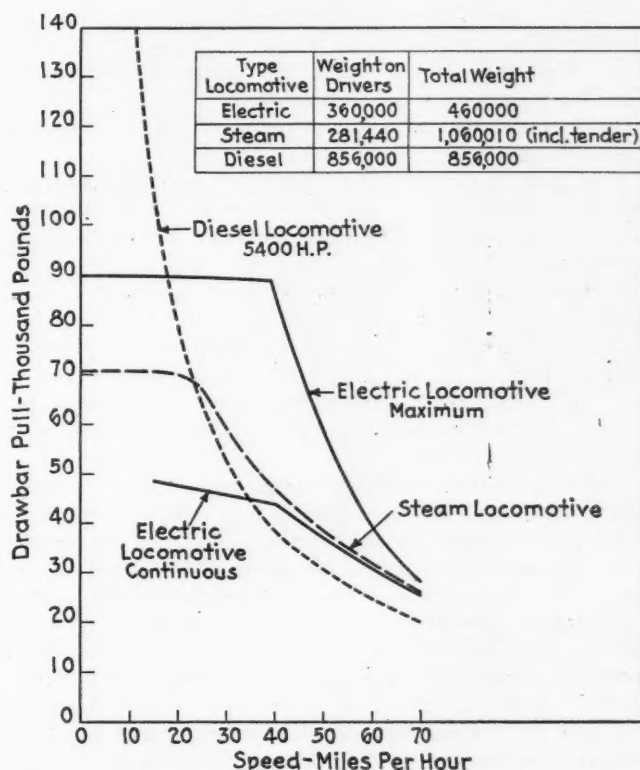


FIG. 1—Performance Characteristics of Electric, Steam and Diesel-Electric Locomotives on Level Tangent Track

be used to provide the power required for a variety of operating conditions. When, for example, a 5,000-hp. steam locomotive is used on a "1,000-hp. job" the loss to the operating company entailed by the resultant low load factor is obvious.

A Suggestion

What has been offered in this paper may be considered as a pattern or design for procedure. It is suggested that it now be implemented by setting up a set of specific conditions on a railroad or a section of a railroad. This specific case could then be placed in the hands of three groups of recognized transportation engineers experienced in the application of steam, electric and Diesel-electric motive power. Each group could then proceed to determine the extent that each type should be used for this specific case. When put together the three reports would indicate to what extent definite values can be given to the many factors involved.

[EDITOR'S NOTE.—Included with the paper is an appendix which lists all of the considerations which must be included in a complete cost study. This is of specific interest to the engineer and it will be published in the Transactions of the American Institute of Electrical Engineers. The subject, which is a controversial one, developed considerable discussion. An abstract of the discussion will appear in an early issue of *Railway Age*.]

Colorado & Southern Adjusts Its Finances

THE plan recently approved by a three-judge federal court at Denver for extension of bond maturities and modification of interest of the Colorado & Southern is notable, because the first such plan approved by a court under the McLaughlin Act.

This act, which became effective October 16, 1942, is substantially a re-enactment of the earlier Chandler Act which expired by its terms approximately one year after its passage. The Baltimore & Ohio and Lehigh Valley plans of adjustment were made under the Chandler Act.

The principal difference between the McLaughlin Act and Section 77 of the Bankruptcy Act is that the former is an adjustment statute intended to meet temporary financial difficulties of railroads, while Section 77 provides for complete reorganization of insolvent roads. When a road is in a position to meet the requirements of the McLaughlin Act, it offers quick relief for temporary financial difficulties. Under it the adoption of a plan of adjustment is conditional upon its approval by seventy-five per cent of all creditors and sixty per cent of each class of creditors.

The Colorado & Southern's petition was filed November 9, 1942, and the final decree was entered March 8, 1943. As required by the McLaughlin Act, the Interstate Commerce Commission's approval of the C. & S. plan was secured before it was submitted to the court. The statute provides for payment of interest as provided in the plan during the pendency of the court proceedings, so that the bondholders get some interest regularly. Another important advantage is that invested principal is not sacrificed or the lien of any bond or obligation disturbed, and no change is made in the par value or number of shares of any of the classes of capital stock. Under the plan of the Colorado & Southern the stockholders must elect two directors nominated by the Reconstruction Finance Corporation and two nominated by the General Mortgage bondholders.

The Burlington owns seventy-one per cent of the Colorado & Southern's stock, and the court found that "control, management and affiliation" of the Burlington is of substantial value to the C. & S. and to each class of its creditors and stockholders.

The effect of the C. & S. plan is to reduce annual fixed charges to a basis which reasonably may be expected to be earned in bad years. During present good earnings the bondholders will get their contingent interest, and all additional income can be devoted to retirement of debt. It is expected that in this way a substantial amount of the bonds may be retired by 1955 so that refunding the balance may be managed in an orderly way. The C. & S. plan extends until 1955 the maturity date of bonds and notes falling due in 1944-45, and reduces annual fixed charges of the company from \$1,971,707 to \$927,392 during the period of extension.

The securities involved in the plan, and the treatment accorded each, are as follows:

1. REFUNDING AND EXTENSION MORTGAGE 4½ PER CENT BONDS, DUE MAY 1, 1945. Of these bonds \$27,015,700 are owned, and \$1,000,000 held in pledge, by the Reconstruction Finance Corporation. The plan provides that the maturity date of these bonds be extended to January 1, 1955, and that—from November 1, 1941, to November 1, 1954, at the latest—the total interest

rate on these bonds be reduced to 4 per cent, 2½ per cent to be fixed, and 1½ per cent, non-cumulative, to be contingent upon earnings. No interest is to be paid on the \$1,000,000 of these bonds held under pledge so long as other obligations amended under the plan are not in default. *Saving in annual fixed interest on this issue is, thus, \$540,314.*

2. GENERAL MORTGAGE 4½ PER CENT, SERIES A, GOLD BONDS, DUE 1980. These bonds are, for the most part, a second lien. \$16,800,000 of them are held by the public; \$3,200,000 are owned by the Fort Worth & Denver City and pledged by it with the R. F. C.; and \$4,918,000 are pledged by the C. & S. with the R. F. C. The total interest on these bonds is reduced to 4 per cent during the 1941-54 extension period—1½ per cent being on a fixed basis, and 2½ per cent, non-cumulative, being contingent upon the prior payment of the 1½ per cent contingent interest on the refunding and mortgage bonds and upon payment of \$300,000 a year into a "capital fund." No interest is to be paid on the bonds pledged with the R. F. C. as long as the pledgors are not in default. *Saving in annual fixed interest on this issue is \$504,000.*

3. OTHER MATURITY DATES EXTENDED. The Galveston Terminal has a first mortgage 5 per cent issue totaling \$546,000, due 1948, owned by the R. F. C., and guaranteed by the C. & S., which is obligated to repurchase the issue from the R. F. C. by March 1, 1944. The date of repurchase has been extended to January 1, 1955. There is a balance of \$445,566 on a C. & S. 5 per cent promissory note to the R. F. C., which the borrower was obligated to pay on March 1, 1944, but payment of which may now be postponed until January 1, 1955. Lastly, the R. F. C. holds a 6 per cent promissory note of the Ft. Worth & Denver Northern pledged by the C. & S., which was due May 1, 1945, and the maturity of which has now been extended to January 1, 1955.

The plan further provides that, during its operation, all available net income after payment of contingent interest on the mortgage bonds must be applied to reduction of debt or to replacement or increase of working capital as directed by R. F. C. That is to say, the stockholders cannot get any dividends while the plan is in operation, but they can retain their stock.

* * *



C. N. R. Photo

The C. N. R. Has a New Monogram for Its Cars

Non-Op Board Hears Views on Express Pay

UNDER the national stabilization policy, no further wage increases may now be granted to express employees, Albert M. Hartung, vice-president of the Railway Express Agency, contended in his opening statement to the emergency board hearing the demands of the employees for increased wages. The express case was opened at Chicago on April 5, by the non-op board, upon completion of testimony by the short lines.

"In October and November, 1940," Mr. Hartung said, "our employees represented here were granted a reduction in their work week from 48 hours to 44 hours, with no reduction in pay. This resulted in a nine per cent increase in hourly rates of pay. Then the employees received a 10 cents per hour wage increase in December, 1941, producing a further increase in hourly rates of pay of more than 12 per cent, or a total of more than 21 per cent. This is substantially in excess of the 15 per cent increase provided for by the so-called 'Little Steel' formula. Under the provisions of the Stabilization Act, the demands for increases in pay must be wholly denied."

Mr. Hartung emphasized the fact that the present wages of express employees are at an all-time high.

"In 1942," he said, "the average pay per straight-time hour was 93 cents, and the average annual pay per employee was \$2,278. The wages of express employees compare very favorably with those of employees performing similar work in other industries and generally are higher. The satisfactory level of express wages is illustrated by our employment situation. Despite the serious manpower problem, with the exception of a very few points, we have applicants for employment in excess of our needs. The explanation for this rests not only in the high wage level and the fact that the express business is an essential industry but also in the satisfactory working conditions of our employees, the permanency of our business, and the regularity of employment."

Mr. Hartung stated that the wage demands made upon the Railway Express Agency involved a total of some \$31,760,000, representing an increase of more than 26 per cent in the 1942 wage bill.

"The increases asked here by the clerks, the machinists and the blacksmiths," he said, "would cost \$21,269,000 per year, or a payroll increase of 17¼ per cent. If corresponding increases were made to all of our other employees—and our experience has been that such increases always are so applied—it would cost us \$26,260,000, a payroll increase of 21¾ per cent. At the same time we are confronted with demands from the teamsters' brotherhood for changes in working agreements which, if granted to all employees, would add \$5,500,000, or an additional 4½ per cent, to our payroll costs."

The impropriety of basing wages upon temporary and abnormal conditions also was stressed by Mr. Hartung.

"More than half of our present traffic is war goods," he said. "We are handling many heavy shipments of war materials, many of them in carload lots—something almost unknown in regular express movement. Aside from this war traffic, our business is down substantially. We know that when peace returns our competition will be keener than ever before. The present volume of business, including so large a percentage of war business, surely should not be used as a standard for any reasonably likely future normal year, or as a basis for judging the ability of the industry to bear a wage increase."

Mr. Hartung voiced his objections to the employees' attempt to force the Express Agency into the general railroad wage case.

"The Railway Express Agency," he said, "is not a railroad company. It does not operate a railroad. Its employees are not railroad employees; they are express employees performing entirely different work. We do not employ section men, signal maintainers, telegraphers, roundhouse employees, dining car employees, or many other classes of men who work on the railroads. Of course, there are some classes of employees common to railroads and express companies, such as clerks, stenographers and warehousemen, but these occupations are common to industry generally."

"Only three of the 15 labor organizations involved in the railroad case represent any of our employees—the clerks, the machinists and the blacksmiths—and the latter two together represent less than 1,000 express employees. About one-third of our workers are vehicle employees, a class of employment non-existent in the railroad industry. About one-third of these vehicle employees are represented by the International Brotherhood of Teamsters, which is not a railroad labor organization."

"The express business is more than a hundred years old. The wages of express employees were established, developed and maintained on the basis of the local labor markets for work of the character which they performed, and not with relation to the wages of railroad employees who did not perform similar work. Then, as now, the drivers were the largest group of express employees and then, as now, the railroads had no such employees."

Only One Dispute Before Board, Unions Contend

Frank L. Mulholland, counsel for the unions, in his opening statement contended that the employees have only one dispute before the board and that the express case is not a separate hearing. "The Railway Express Agency," he continued, "is exactly what its name implies, an agency of the American railroads to carry on certain of the functions of transportation. It is our position that this board should not treat the Railway Express Agency in any other manner than it treats the other carriers who are parties to this case. All of the testimony that has been introduced heretofore relative to situations that may arise in our present proceeding shall be made applicable to this phase of the investigation."

The first witness for the employees was Ralph Speer, a clerk in the office of the grand president of the Brotherhood of Railway Clerks. One exhibit he introduced covered the corporate history of the agency, while another showed its operations and revenues more completely. His exhibit showed revenues amounting to \$255,094,750 in 1942, and express privileges payments to rail and other carriers amounting to \$107,708,347. It also showed that steam railroads, labeled stockholding railroad systems, were paid \$59,260,423, or 93.9 per cent of the total express privileges. Other carriers and the amounts of express privileges paid them were shown in the exhibit as follows: electric lines, \$285,400; coastwise steamboat lines, \$79,967; inland steamboat lines, \$66,701; transoceanic steamboat lines, \$77,950; motor carriers, \$416,239; aircraft lines, \$2,894,635; gas motor (rail) lines, \$34,048; ferry lines, \$954 and other lines \$807.

The second witness for the employees was Mathew Geiger, a general chairman of the Brotherhood of Railway Clerks, who described the duties of express employees.

Diesel Demands Are a Wage-Rise

Railroads make this contention, while Clement shows firemen's pay has risen faster than their ton-miles

THE demands of locomotive engineers and firemen for changes in the basis of their rates of pay are merely devices for increases in wages, according to G. H. Dugan, assistant to the vice-president of the Southern, in testifying before the emergency board hearing the demands of the engineers and firemen at Chicago. Mr. Dugan, who testified on March 31, was the fifth and last of the general witnesses of the railroads to deal with the aspects of all of the cases. Upon the completion of his cross-examination, the Eastern railroads began the presentation of their case.

Mr. Dugan pointed out that the firemen's demands are based, in part, upon their professed desire to standardize rates of pay in the various sections of the country by the nationwide application of Eastern basic pay scales—but despite their theory of uniformity, the firemen, nevertheless, propose to retain those Southeastern rates of pay where they are above the corresponding Eastern rates. Similarly, he said, the engineers are not seeking to eliminate regional differences in pay in steam service, but have confined their demands entirely to Diesel locomotives.

Discussing the firemen's demands in more detail Mr. Dugan explained that, under the present basis, rates of pay are stepped up as locomotive weights on driving wheels increase. Both the present basis and the proposed pay basis, wherein total locomotive weight would be substituted for weight on drivers, were compared by Mr. Dugan to a flight of stairs. "The firemen," he said, "are proposing to increase the height of the risers 25 per cent and decrease the width of the tread, generally, about 60 per cent. In other words, they will augment each change in the gradation of pay rates, and they will make the gradations more than twice as numerous. Not only are the steps higher, but there are many more of them. This seems a strange plan in view of the firemen's statement that it was not expected to increase a man's wages directly."

Taking up the demands of the engineers for a pay scale on Diesel locomotives based upon horsepower rather than on weight on drivers, Mr. Dugan said: "Diesels operated in passenger service in the Southeast are one-, two-, and three-unit locomotives of 2,000, 4,000 and 6,000 horsepower, respectively. Engineers now are paid on the combined weight on drivers of all the units used as one locomotive. The 2,000 horsepower Diesel weighs between 200,000 and 250,000 lb. on its driving wheels, and the weight-on-drivers rate of pay is \$8.10 per 100 miles; the engineers demand \$8.78 on a horsepower basis.

"The 4,000 horsepower Diesel of two units pays a weight-on-drivers rate of \$8.44 per 100 miles: the engineers demand \$10.32. The weight-on-drivers rate applying to the 6,000 horsepower Diesel is \$8.61: on the horsepower basis demanded by the engineers, it would be \$11.52 per 100 miles. For the locomotives of the horsepower ratings now in service, the wage increases demanded are 8.4 per cent, 22.3 per cent and 33.8 per cent, respectively.

"The weight-on-drivers rate for an engineer on a

single-unit freight Diesel is \$9.25 per 100 miles: the demanded horsepower rate is \$10.27. The weight-on-drivers rate on a two-unit freight Diesel is \$9.76, and, on the demanded horsepower basis, \$12.13. For a three-unit Diesel, the demanded horsepower rate is \$13.13 and for four units, \$14.13. The percentage increases in rates of pay, demanded horsepower basis over present weight-on-drivers basis, are 11.2 per cent, 24.2 per cent, 34.5 per cent, and 44.7 per cent, respectively.

"These proposed rates on the horsepower basis are undisguised wage increases."

Eastern Railroads Testify

The Eastern railroads began their testimony in opposition to the demands of the firemen on March 31. Their first witnesses were particularly concerned with the straight electric and the steam operation in the firemen's case, while later ones were concerned with the Diesel-electric question in all three cases. Because the Eastern region is not, as such, involved in the engineers' case, regional presentation was confined to the two cases brought by the Brotherhood of Locomotive Firemen & Enginemen.

The first witness in the Eastern lines' presentation, R. W. Brown, president of the Lehigh Valley, contended that "in applying rules for the determination of how much the employees, on the one hand, are to receive out of the project, and the owners of the machine, on the other hand, we should adhere to normal and stable principles, rather than abnormal and untried and unstable principles. This witness, who was himself a locomotive fireman in his earlier career, continued:

"Weight on the driving wheels of a steam locomotive is still, as it has been for more than 30 years, the fairest and most equitable basis for determining the wage rates of engine crews. And when I say fair and equitable, I mean fair and equitable to the employee as well as to the company. Furthermore, it is a sound and stable basis—founded upon a scientific, mathematical principle which has not varied throughout the years and cannot be varied to any appreciable degree.

"One of the reasons given by the employees for increasing the wages of firemen is the allegation of greater productivity on their part. The fireman does not claim that he is doing more work, but that he has accomplished more *by the machinery furnished him through the investment of capital* by the railroad for which he works. This claim has been urged by railroad employees in every wage proceeding from the first one I ever heard of to the present time. Every time more capital is spent for a machine that lessens the labor of employees, but, in conjunction with their efforts, increases the over-all results, it is claimed that all of this was due to the employee. The expenditure of capital and the part capital has played in the process are entirely forgotten.

"The amount of work that can be accomplished by a fireman shoveling coal into a firebox depends upon the exertion of his weary muscles and his back. When capital is expended and an automatic stoker is applied, the same fireman will not expend anything like the amount of energy in shoveling coal. Capital has accomplished two things: it has increased the efficiency of the locomotive and has decreased the effort and weariness of the fireman. Why labor should be paid more where capital does the work has never been clear to me."



W. G. Carl, assistant to vice-president, Baltimore & Ohio, likewise characterized the demands of the firemen as, in reality, an attempt to secure wage increases. The union, he said, proposes a scale based generally upon total locomotive weight, but demands the retention of the present basis wherever higher rates of pay would result. As a result of this two-way demand, Mr. Carl said, the union is seeking higher rates of pay upon 9,149, or upon 59 per cent, of the total of 15,414 locomotives in the service of the Eastern railroads.

The earnings of newly-employed firemen on the Eastern railroads under existing rates of pay were shown by Mr. Carl in some detail. For the month of August, 1942, he said, 5,373 firemen who had not more than one year's seniority received average wages of \$221.45. On many roads the average, of course, was substantially higher, he said.

Changes in locomotive design, resulting in increased speed, have reduced materially the working hours of railway firemen, J. E. Ennis, engineering assistant of the motive power department of the New York Central, testified. Continuing he said:

"The constant endeavor of railway mechanical engineering departments and locomotive builders has been to provide locomotives with increasing sustained high horsepower, which requires larger and more efficient boilers. What this means, practically, is not that longer trains of greater tonnage will be hauled, but that trains of the same size will be hauled at higher speeds, thus reducing the time of the trip.

"As a result, while the revenue received by the railroad per trip is not increased, the fireman's hours of work are reduced with no reduction in his compensation. With the reduction in running time, the fireman either has more leisure or is able to run more miles and make more money in a given period of time.

"Improvements in locomotive design have increased the safety, efficiency and economy of operation. It is self-evident that the changes otherwise would not have been made. Some of the changes and additions have directly affected the duties of the fireman, reducing the effort and manual work required, and increasing his comfort. Among these mechanical improvements are the superheater, the mechanical stoker, the feed water heater, the automatic fire door and many other items."

Supernumerary Men on Engines Already

The railroads do not need one more "fireman" or "helper" on electric locomotives—they don't even need the one they already have. So President M. W. Clement of the Pennsylvania testified on April 2 at the hearings on the firemen's and enginemen's working conditions and pay-base case before the emergency board at Chicago. He cited figures also to show that firemen's wages have risen more rapidly than their output of ton-miles. Continuing he said:

"The first electric engine on the Pennsylvania Railroad was in the nature of two complete units. The two units were operated together as one engine. They were used in third-rail area, in switching service, and in doing shuttle work. It was the intention to operate these engines as one-man engines; that was all that was necessary at the time, and all that ever was necessary. However, it was the decision of the management that, as this was practically a switching operation and since it was the general practice to have two men on switching engines, there would be allowed two men on the electric engine just as on the steam engine, even though the firemen would have very little, if anything, to do.

"At the time, there were not many of these electric engine crews, and it did not amount to much. But the helper on these electric engines, the second man, was unnecessary then and, except for exceptional circumstances, is unnecessary now. Yet as the electric operation has grown from a switching service to a road movement, the two men have been continued on the electric engines of the Pennsylvania Railroad.

"Nevertheless, the fact remains that if the operation had been

created new as an electrified operation instead of changing from steam operation, it would have been brought forth with only one man; and never having had that other man, it would have been accepted that way, just as the one-man street car, the bus, and the truck have been accepted, and there would not have been pressure either from labor or from the public for the second man."

Bigger Engines Have Made Work of Crews Easier

Discussing the changes and improvements which have been made in railroad motive power, and the benefits of these changes to the enginemen, Mr. Clement said:

"The last war doubled all railroad costs and all railroad wages, and if the railroads were going to survive they had to change their 'model' to meet their competitors. The employees were as much dependent upon the efficiency and accomplishments of management for their jobs as the public at large and the country as a whole are dependent upon the same things for the service which is being performed by the railroads today. The railroads spent billions of dollars rehabilitating their plant, to place it in position where they could pay still higher wages to these employees, reduce the rates to the public, and retain their position in the face of subsidized competition. Part of this improvement was made by providing bigger engines to haul the load more economically.

"But in this evolution every time the engine was made bigger, the progress of the art made the jobs of these men lighter. If you will go back through the old negotiations you can hear these men talk about spending 16-hour days on the road in freight service, bathing their faces in ice water to keep awake. Now, with centralized traffic control and modern signal systems, and with modern power and modern operations, these men have been getting over the railroad in four, five, six or eight hours; and, except in periods of wartime congestion, getting two days' pay in less time and with less effort than used to be necessary to get one day's pay.

"In exceptional cases under the dual pay system, where the train runs at a speed of 100 miles an hour, it runs at the rate of a day's pay per hour. If it is running at 75 miles an hour, it is running at three-quarters of a day's pay per hour for the enginemen and firemen on passenger trains.

"For example, in the New York-Washington service, the engineer makes ten round-trips per month, getting a little over 4½ days' pay for each round-trip, or 46 days' pay per month for ten round-trips. The fireman makes nine round-trips per month, working nine days out of thirty, and gets a little over 4½ days' pay for each round trip—getting 41½ days' pay for the nine round-trips. The work of these firemen is equal to one day on and two days off.

Present Pay Basis Already Unduly Generous

"This is a practice that grew up under old conditions, but would never have grown up under modern conditions. . . . It is illustrative of the picture as a whole, showing just how antiquated and arbitrary rules and practices may become. Nevertheless, these are the men who are before you trying to get more money by changing the basis of compensation so as to give them higher compensation for not only gradually diminishing performance, but for a gradually decreasing amount of time in which they are performing it."

Mr. Clement discussed, in some detail, the matter of "productivity" of railway labor—in comparison with the increase in output ascribable to better equipment and larger capital investment:

"It is difficult to find wherein road firemen have contributed to the productive effort of the railroad in any way comparable with their gains. In 1915 and 1916, just before we entered the last war and a proper point with which to compare, we on the Pennsylvania Railroad were getting 11,000 net ton-miles per dollar of road freight firemen's wages; but in 1939 and 1940—years just preceding this war—we got only 8,000 net ton-miles per dollar of road freight firemen's wages, a reduction of about 27 per cent.

"All the men on the railroad—the men on the tracks, the men

in the shops, the men in the ticket offices, the men in the freight houses, the men in the switching service, the men in the commutation service—all the groups make their contribution toward the completed transportation. But here we sit discussing a thing which means more wages for some of the highest paid men in the service.

"These men do not care to discuss the producing of as many net ton-miles per dollar of wages, in the more comfortable and more easily operated engines of today, as they contributed back in the days of their more difficult work. They want to discuss with us the putting of an unnecessary man on the engine, that would reduce their output to a third, or even less, per dollar of wages, of what it was before the last war; and without an acknowledgment that the output of all other railroad employees carries them along. They also want to discuss with us still further reduction of the output per dollar, by getting more dollars without increasing their output.

"There never has been, in all my experience in labor relations and negotiations, a class of labor that, as in this instance, has refused to take stock of themselves and their lack of contribution toward the advancement of the art; and there never has been a time in all my labor experience when there was more unfairness, in pressing home at a time like this a demand for an additional man when they themselves must realize that there is not a full necessity for the extra one they already have.

"In fact, it is seldom in my negotiations with labor that I cannot synchronize my mental processes with theirs and see some reason in what they are asking for. But never in my negotiations and in my relationships with labor has labor ever asked for a thing for which there is less reason, less consideration, less fairness than there is in this request for another extra fireman on an electric engine."

Present Basis Was Sought by Unions

R. B. White, president of the Baltimore & Ohio, also stressed the fact that the demand of the firemen is, in essence, an effort toward higher wages. He said in part:

"I understand that it is the contention of the firemen, in making these demands, that their purpose is not, primarily, to increase wages. Whether this be the contention or not, the fact is that if the demands are granted they will operate, in the case of the Baltimore & Ohio, to effect an increase in wages which we estimate at 4.8 per cent. Therefore, it would appear that the object of these demands is to further increased wages despite the fact that a general increase was granted to these men little more than a year ago."

Mr. White pointed out that the "weight on drivers" method for fixing the basic wage rate applying to any locomotive was originally sponsored by the unions and was adopted by the Eastern railways in 1913 as the result of a decision by an arbitration board. The claim now is made, he continued, that since 1913 there has been a substantial decrease in the ratio of "weight on drivers" to total weight and that, in consequence, there is greater productivity. "In the case of the B. & O.," he said, "I propose to show that this is not the fact."

"Of 210 steam passenger locomotives in service on the Baltimore & Ohio 108 have undergone no change either in weight on drivers or in total weight since they were built. Of 1,192 locomotives in freight service, 969 likewise have undergone no change, either in weight on drivers or in total weight. Of 513 switching locomotives in service, 394 have undergone no changes in these regards. Thus, of the total of 1,915 steam locomotives of all types in service, 1,471 or 76.18 per cent have undergone no change either in weight on drivers or total weight since their original construction.

"Of these 1,471 steam locomotives in service in which there has been no change in weight, 725 or 49.3 per cent were built in 1913 or prior thereto. Yet of these 725 locomotives, 390 are affected by the present demands.

"I feel that these facts clearly refute the contention that there is any necessity for changing the basis of pay from weight on drivers to total weight. It must be apparent that in the case of

the Baltimore & Ohio it could result in nothing less than a flat increase in pay, which is not justified by the facts."

There is no work for a second fireman on electric locomotives, C. G. Wilcox, road foreman of engines of the Pennsylvania, asserted in his testimony. To offset the contention made by the union that there are enough duties to warrant a second fireman, Mr. Wilcox rode several electric locomotives in the East and brought to the board a stop-watch study of the work of firemen on the Pennsylvania; the New York Central; the New York, New Haven & Hartford; the Baltimore & Ohio and the Long Island. He said:

"The New York Central operates electric locomotives between New York City and Harmon, N. Y., a distance of approximately 33 miles. This run ordinarily is made in from 40 to 50 minutes. Very few of the passenger engines in this service can be used in multiple.

"These electric passenger locomotives have an oil-burning boiler near one end of the locomotive to furnish heat for the train. With the boiler end leading, the engineer and the fireman are in the cab together. With the boiler end trailing, the fireman has to make trips back and forth to take casual glances at the heating boiler. On most of my trips on the New York Central the fireman spent most of the time in the cab with the engineer. On trips where the boiler was on the leading end, or where steam was not required, the fireman did not leave the leading end of the engine. The operation of these heating boilers is quite similar to that of ordinary electrically-controlled automatic oil-burning furnaces.

"From my observation I cannot see what duties could be performed by an additional fireman if he were to be placed on the engine, as the fireman already employed spends the majority of his time in the cab with the engineer.

"The electric engines used in freight service can be and are used in multiple. It was my observation that the fireman spent most of his time in the cab. At times when inspections were made, the fireman would be away from the head end of the engine from two to four minutes. There is nothing that an additional fireman could do other than to assist the engineer in looking out for signals. Of course, that would mean two firemen watching for signals, as the fireman now employed has practically no other duties assigned him."

This same lack of need for an extra fireman, Mr. Wilcox testified, was supported by his observations of electric locomotive operation on the Pennsylvania, the Baltimore & Ohio, the Long Island and the New Haven.

There is no element of safety that will be served by placing extra employees on locomotives, T. H. Carrow, superintendent of safety of the Pennsylvania, testified. Summarizing, for the Eastern railroads, casualties to engineers and firemen on duty on various types of locomotives in the years 1936 and 1941, Mr. Carrow compared the accident rates on those locomotives where extra men now are sought with the corresponding accident rates on the locomotives where no increase in crew consist is demanded. Locomotives of all kinds on the Eastern railroads in the two years 1936 and 1941, combined, Mr. Carrow said, ran a total of more than a billion miles—the equivalent of more than a million trips between Chicago and New York. With this huge mileage, there were only 55 fatal accidents to engineers and firemen—or 0.054 fatalities per million locomotive-miles—and only 1,098 injuries to such employees—or 1.080 per million locomotive-miles. All of the fatalities occurred in steam operation: there were no fatal accidents to engineers and firemen in electric, Diesel, and rail motor car operation. Of the total of 1,098 injuries, 1,063 occurred in steam operation and 35 in electric, Diesel and rail motor car operation.

"The mileage run by electric and Diesel locomotives and rail motor cars," Mr. Carrow said, "amounted to 8.4 per cent of total mileage run, but the accidents to



engineers and firemen on these types of power amounted to only 3.4 per cent of all accidents to such employees. The casualty rate per million locomotive-miles was 0.407 on non-steam power, and 1.201—or three times as high—on steam power.”

The lack of necessity for additional employees on locomotives, Mr. Carrow said, was emphasized by a closer study of individual accidents. While 19 engineers or firemen were injured in single-unit electric operation—where no additional men are demanded—there was only one injury in multiple-unit electric operation, where additional employees are sought. Extra men could not have prevented this one accident, Mr. Carrow pointed out, as it occurred when a fireman burned his leg on an electric cable.

Similarly, Mr. Carrow said, eight engineers or firemen were injured in accidents on single-unit Diesel locomotives where firemen were employed and where no additional men now are demanded; while there was only one injury on single-unit Diesel locomotives where no firemen were employed and where additional men now are sought. The size of the locomotive crew had no bearing upon this accident, either, Mr. Carrow explained, as it occurred when an engineer was sprayed with fire extinguisher liquid as a fire, resulting from a broken connecting rod, was being put out.

“The circumstances antecedent to accidents,” Mr. Carrow said, “indicate that preventive action lies exclusively with the engineer. I believe that the more an engineer relies upon the unsolicited assistance of a fireman for safety, the less safe the engineer will be. The fireman cannot be relied upon all the time to help the engineer out in tight places and, therefore, it is not conducive to safety to depend upon him to do it part of the time. Safety in the operation of a locomotive, either steam or non-steam, consists primarily in the exercise of good judgment on the part of the engineer, and that is entirely an individual function.”

To refute employees’ testimony regarding two accidents on the Baltimore & Ohio and the contention that the accidents would not have occurred if the fireman had been in the cab at all times, the Eastern railroads placed on the stand two B. & O. superintendents who had investigated the accidents. One, T. C. Smith, described the conditions surrounding the accident on the Cincinnati division showing that had the fireman been in the cab the only thing he could have done was warn the engineer that he had not regarded the signal because he could not take control from the engineer. The other, Paul K. Partee, described the conditions which caused the Dickinson, Md., accident.

Southeastern Lines Start Their Reply

The Southeastern lines began their testimony in opposition to the demands of the firemen and enginemen on April 7. The regional case for the Southeast involves the engineers’ case and the firemen’s case for firemen but not the case in which the Brotherhood of Locomotive Firemen & Enginemen are representing the engineers.

The first witness for the Southeastern lines was M. F. Hawkshaw, special accountant for the Southern, who contended that the overall cost to the Southeastern railroads involved in the demands of the engineers and firemen in the Diesel case would amount to \$2,420,672 per year. There are 5,609 passenger, freight and switching locomotives involved in this case in the Southeast and wage rate increases for firemen are requested for 4,150 or 74 per cent of these locomotives, he said. This freight and switching wage increase, together with the firemen’s increased manpower demands, would cost the railroads

in the Southeast an additional \$1,171,808 per year of the \$2,420,672 mentioned above.

Mr. Hawkshaw presented statistical data refuting the contention of the Brotherhood of Locomotive Firemen & Enginemen that changes in the design of modern locomotives have resulted in greatly reduced ratios of weight on driving wheels to total weight of locomotives, thus tending to create inequities in the pay of firemen who are now paid on a basis of total weight on drivers.

In connection with the proposal to eliminate existing territorial differentials, Mr. Hawkshaw pointed out, although there is a decided difference in the compensation paid industrial workers in the East as compared to the Southeast, that railroad engineers and firemen in the Southeast have higher average annual earnings than their brothers in the East.

For ten selected typical Diesel-electric passenger runs, it was shown that to comply with the firemen’s and engineers’ request it would necessitate employing 201 men on the trains as compared with 104 now employed and that the engine crew costs would be more than doubled.

Pullman Incorporated

FOR the Pullman group of companies, as for the country as a whole, 1942 was characterized by transition to an all-out war economy and was distinguished for its stupendous industrial achievement and preparation for even greater accomplishment in 1943, David A. Crawford, president of Pullman Incorporated informed stockholders in his annual report. In this expanded war-effort, he said, the company by reason of its exceptionally useful manufacturing facilities and unique transportation service is playing an outstanding part.

Consolidated net income of \$10,361,210 or \$3.14 per share for 1942, after all taxes and reserve appropriations, fell \$557,610 below the 1941 earnings of \$10,918,820 or \$3.31 a share. Although the total gross income of carrier revenue and manufacturing sales combined increased 77 per cent to an aggregate of \$312,000,000 and established a new high record in the history of the Pullman group of companies, tax requirements absorbed \$39,553,496 of the \$49,914,706 of pre-tax net income and thus precluded realization of profits commensurate with the unprecedented level of business activity of those companies in 1942, the report states. The war-generated tax burden and reserve appropriations have restricted net income to 3.3 cents on each dollar of gross revenue in 1942 as compared with 6.2 cents in 1941, 8.9 cents in 1937 and 9.4 cents in 1930. The sharply increased tax rates prescribed in the Revenue Act of 1942 are effectively siphoning off wartime profits as intended, and forcing profit margins far below those realized in recent years of much less business activity under peacetime conditions.

In the sleeping and parlor car business, there was a net earning of \$6,487,273 on a record gross revenue of \$113,292,473 in 1942 as compared with a net of \$1,732,949 on \$43,118,417 less gross revenue in 1941. Federal taxes took heavy toll out of the 1942 “real earnings” of this division, which at \$19,522,929 before such taxes and reserves, were the largest on record, the report points out.

In the manufacturing business, a net profit of \$3,841,015 was earned on \$198,533,395 of sales as compared with the 1941 profit of \$9,257,848 on sales of \$105,428,055. While this represents the largest volume of sales ever recorded in the company’s manufacturing business, the



report states, the final net profit was restricted by greatly increased taxes and necessary reserve appropriations to less than 2 cents on each dollar of gross sales.

A net earning of \$32,922 from investment operations contrasts with a deficit of \$71,976 in 1941 which reflected principally the allocation of federal income tax on account of tax on inter-company dividends with no corresponding tax-allocation in the 1942 results.

Pullman traffic, in terms of passenger-miles, broke all records in 1942 and surpassed by a wide margin the previous record of 1926. Considering the fact that the record traffic volume was handled with 2,000 fewer cars than were available in the earlier period, this is an outstanding performance and reflects maximum utilization of available equipment and conduct of car operations at a high level of efficiency, the report states. The indices of operating efficiency that stood out most strikingly were a new high average loading per car, 18 passengers, and the highest average number of miles run per car per day, 461 miles, in the company's history.

Expansion in troop transfers and other war-generated government travel accounted for more than three-fourths of the 1942 increase in traffic volume, measured in passenger-miles, and for better than two-thirds of the gain in gross revenue, but due to the relatively low rates at which this traffic was handled, it contributed less than four tenths of the total gross revenue from cars in 1942.

Limitations of car supply and wartime restrictions on civilian travel tended to restrict expansion in the volume of the regular commercial and tourist traffic, which is the more profitable portion of the business, as it is handled at an average rate per passenger-mile more than double that received by Pullman for troop transportation, the report continues. Notwithstanding the 10 per cent higher Pullman fares in effect during the last nine months of the year, the average Pullman fare of 5.451 mills per passenger-mile in 1942 was the lowest in over 20 years, due to the substantially enlarged element of low-rated troop movements which were handled at an average rate of approximately 3.2 mills per mile.

The movement of troops rose rapidly during 1942 and the upward movement accelerated as the months went by, with the result that by the year-end it was running close to the volume of civilian travel. The transportation of 8,000,000 troops a total distance of nearly 9,000,000,000 passenger-miles in organized group movements carried in Pullman cars during 1942 and the concurrent piling up of more than 19,000,000,000 passenger-miles of total passenger service afford some indication of the

task performed by Pullman in the year just closed, the report says.

Several trains of Pullman cars have been sold to the government and converted, in Pullman shops, into special-type units for hospital service and additional trains for that use are now being prepared in Pullman shops. Pullman cars that were in sound condition but of types not adaptable to use in wartime Pullman services, have been sold to the railroads for conversion into types of equipment that would be of use in the emergency. Aside from a few units of private-car type and some lounge and observation cars of Pullman ownership that have been removed from streamliners for the duration, there are today no Pullman cars that are not in most intensive operation in Pullman services, the report states.

Numerous parlor and sleeping cars have been converted into 3-tier troop sleepers having an average capacity of 43 passengers, and additional cars were still undergoing such conversion at the year-end.

A total of 157 new-type lightweight sleeping cars was added to the Pullman fleet early in 1942, representing a new high in the number of such cars installed in service in any one year, and extending the total inventory of modern lightweight Pullman cars to slightly above 600.

Two thirds of the year's output of the manufacturing division "went to war" and in 1943 an even larger proportion is scheduled for the same destination. However, there is ample productive capacity in the freight car plants to build new freight cars that the railroads may buy, the report points out.

Manufacture of armament for the various branches of the armed forces constituted the major element of business in the manufacturing division in 1942 and armament orders on hand at the beginning of the present year accounted for more than 95 per cent of all orders on the books.

Technical research and development work are proceeding in both major divisions insofar as the present manpower and material situation will permit, with particular emphasis on improvement in design and manufacturing technique for application to cars constructed in the post-war period when it is expected that there will be a large demand for new railway equipment, the report continues. A new disc or rotor-type brake, in the design of which Pullman has collaborated, has now been in continuous trans-continental service on passenger equipment since August, 1942, and has proved highly satisfactory from a functional standpoint, with not a single failure in service, the report says.

TRAFFIC AND OPERATING STATISTICS COMPARATIVE STATEMENT FOR YEARS ENDED DECEMBER 31

ITEM	1938	1939	1940	1941	1942
CARS OWNED	7,578	7,052	6,901	7,048	7,121
CARS OPERATED	5,124	5,100	4,990	5,303	6,368
CAR MILES	818,481,116	825,745,133	820,386,700	878,057,274	1,071,254,181
REVENUE PASSENGERS:					
Berth	11,338,471	11,549,947	11,077,546	13,166,554	21,008,309
Seat	4,201,378	4,105,188	3,687,770	3,744,167	5,054,240
Total	15,539,849	15,655,135	14,765,316	16,910,721	26,062,549
REVENUE PASSENGER MILES	8,269,882,057	8,485,399,123	8,213,878,992	10,070,406,876	19,071,589,061
OPERATING REVENUE*	\$ 58,924,968	\$ 60,664,266	\$ 60,143,649	\$ 67,040,587	\$ 99,722,785
Average per Car Operated	\$ 11,499.80	\$ 11,894.95	\$ 12,052.84	\$ 12,642.01	\$ 15,659.99
EXPENSES**	\$ 57,558,097	\$ 58,573,975	\$ 57,899,790	\$ 65,307,638	\$ 93,235,511***
Average per Car Operated	\$ 11,233.04	\$ 11,485.09	\$ 11,603.16	\$ 12,315.23	\$ 14,641.25
NET CARRIER EARNING†	\$ 1,366,871	\$ 2,090,291	\$ 2,243,859	\$ 1,732,949	\$ 6,487,273***
TRAFFIC AVERAGES:					
Average Operating Revenue per Passenger	\$ 3.79	\$ 3.88	\$ 4.07	\$ 3.96	\$ 3.83
Average Net Carrier Earning per Passenger	\$ 0.09	\$ 0.13	\$ 0.15	\$ 0.10	\$ 0.25
Average Net Carrier Earning per Car per Day	\$ 0.73	\$ 1.12	\$ 1.23	\$ 0.90	\$ 2.79
Average Mileage per Car Operated	159,722	161,914	164,396	165,577	168,225
Average Journey per Passenger (Miles)	532	542	556	596	732
Average Miles per Car per Day	438	444	449	454	461
Average Loading per Car (Passengers)	10.10	10.28	10.01	11.47	17.80

* From all sources after deducting contract revenue payments to Railroads.

** Including allocated portion of Federal taxes on income.

*** After appropriation of \$2,500,000 to reserve for post-war re-adaptation of Pullman equipment.

† After provision for Federal taxes on income.

Railroads-in-War News

WPB Puts Out New Maintenance Order

P-142, effective April 5, supersedes P-88 and L-229, which are revoked

Preference Rating Order P-142 was issued by the War Production Board on April 5 to become as of that date the new medium whereby railroads and other transportation agencies will obtain materials for maintenance, repair and operating supplies. Designed, as the WPB press release put it, "to implement the acquisition of materials needed for the operations of transportation systems, as contemplated under the Controlled Materials Plan," it supersedes orders P-88 and L-229, which were revoked, also as of April 5.

P-142 also supersedes CMP Regulation No. 5 (which assigned an AA-1 rating as of April 1) insofar as the larger transportation systems are concerned. It covers steam, electric and terminal railroads, private car line companies, electric street railway and trolley coach systems and common carrier passenger motor bus systems, except those which can obtain all of the controlled material requirements at retail or from warehouses.

WPB thinks that the definition of maintenance and repair as set out in P-142 has been "simplified and clarified." The definition reads as follows: "Maintenance and repair means the upkeep or restoration of any unit of the operator's property or equipment by using the minimum amount of material necessary to keep the unit usable for the purpose intended in its existing design, to restore parts of the unit to their original usefulness, or to renew parts to restore the unit to its usefulness for the purpose intended in its existing design."

The term "maintenance and repair" in P-142 does not include the use of materials for heavy repair of locomotives or railroad cars. Other clauses of the order, however, make separate provision for such work. In this particular the new order differs essentially from P-88 and requires that material for each of these purposes be shown separately on the form PD-844. This, said the WPB announcement, "is occasioned by the increasing gravity of the material situation and the need for such information in order better to calculate railroad material requirements and better to assure their continued flow to meet the railroad maintenance and repair needs."

Another significant difference from P-88 is that of quantity controls on fabricated items which formerly were obtainable on open end priority ratings. Owing to the increased number of critical common com-

ponents the production of which is being scheduled, it is now deemed necessary to secure such information so that transportation needs will be determinable.

While under P-142 no materials can be obtained until an operator has applied for and received a serial number, preference ratings and authorizations on PD-351 for the second quarter remain in effect as if they were authorizations under P-142. The latter does not in itself assign any preference ratings, as did P-88. Under the new operation, the transportation systems covered will list their requirements on Form PD-844 (similar to PD-351 under P-88), quarter by quarter, including controlled materials. These lists will be sent to WPB, which will screen them and then assign preference ratings to the quantities which are justified. If an allotment is considered necessary under CMP, it will be made.

The WPB also may assign specific preference ratings to deliveries of specific materials needed for emergency repairs, upon proper application. The certification MRO-P-142 and serial number must be used both in applying preference ratings and in obtaining controlled materials.

P-142 broadens the resale provision of P-88 by permitting resale of materials by one operator to another, or to a person who plans to use them in work on the operator's equipment, provided that the material could have been used by the operator itself in making its own repairs without violating the order. Also under the resale provision, the operator can resell material to its own subsidiaries, or for the maintenance of track and equipment not owned but customarily maintained by the operator or its subsidiaries. Another permitted resale is for the repair of equipment of another carrier in accordance with the Code of Rules for the Interchange of Traffic, as adopted by the A. A. R.

Under the inventory clause of the order, no operator shall accept delivery of any material (except fuel) if its storehouse inventory thereby would be greater than required in the next 60 days. However, this would not prevent it from maintaining maximum stocks of materials needed for emergencies. The provision in P-88 providing for conservation of materials has been retained in P-142. The WPB may issue supplementary orders or schedules requiring the elimination or diminution of the use of any materials, with or without the substitution of other materials, and may specify the use to which certain types of materials can be put.

Except when specifically authorized by the WPB, an operator can use materials obtained under the order only for maintenance, repair and operating supplies, for heavy repair of locomotives and railroad cars, and for replacement of rail in conformance with their usual practice.

Oil Movement Was Record Last Week

Daily average of 933,966 barrels compares with previous high of 856,710

Rail deliveries of petroleum products into the East-coast area reached a new all-time peak of 933,966 bbls. daily during the week ended April 3. The daily average tank car deliveries were 912,919 bbls. while 21,047 bbls. a day came in drums loaded into box cars. The record compares with the previous high of 856,710 bbls. daily delivered during the week ended September 19, 1942.

Construction of additional facilities for unloading tank cars at oil terminals on the Atlantic seaboard has begun, Director Eastman of the Office of Defense Transportation announced April 3, and plans are under way for projects expected to increase the daily handling capacity of these terminals by more than 950 tank cars. Part of this program has been approved by the War Production Board and the balance will soon be considered by that agency, the statement indicated.

The added facilities will be constructed by the railroads and oil companies involved, following surveys conducted through the Association of American Railroads and the Petroleum Industry War Council and recommendations of the office of Petroleum Administrator Ickes based thereon. Under arrangements worked out with Mr. Ickes and the ODT, the Defense Supplies Corporation will provide the government's financial contribution to the undertaking.

The largest of 23 projects included in the program, which would affect many points along the coast between Norfolk, Va., and South Portland, Me., is that on which work has been started, a development involving four terminals in New Jersey on the line of the Central of New Jersey—Tremley, Carteret, Sewaren, and Bayonne—where railroad improvements at a cost of about \$615,500 will include extensive track installation and relocation to facilitate classifying and distributing loaded tank cars and concentrating and dispatching empties. This work is scheduled for completion in May. The other projects under consideration are less extensive, Mr. Eastman's statement indicated, and the entire program is estimated to involve an expenditure of around \$1,000,000.

(Continued on page 731)

Car Delays Result In Service Orders

California's excess empties and
South's slow reefers cut
car supply

Supplementing an Association of American Railroads Car Service Division order of April 3, a three-day embargo on the movement eastbound from points within the state of California of general freight was effective April 6, 7 and 8 under the Interstate Commerce Commission's Service Order No. 116. The embargo was designed to provide an opportunity to break up an excessive accumulation of empty cars being held at California points for eastbound movement, the order indicated.

Prior to the comprehensive I. C. C. order there were issued two others—one by the O. D. T. and the other by the Car Service Division. The first order, issued by W. F. Kirk, associate director of the Division Railway Transport of ODT at Chicago, instructed the Atchison, Topeka & Santa Fe, the Southern Pacific and the Union Pacific to give preference in Southern California over civilian carloads to empties awaiting eastbound movement. This order was effective for 36 hours, from 11:59 p.m. on April 3 until 11:59 a.m. on April 5.

Shortly following this order, on April 3 the Car Service Division issued Embargo No. 109, which was made effective from 12:01 a.m. April 6 until 12:01 a.m. April 9. This order covered the entire state of California but made a number of exceptions.

The terms of the I. C. C. order provided that the Atchison, Topeka & Santa Fe, Southern Pacific, Pacific Electric, San Diego & Arizona Eastern, Western Pacific, Union Pacific, Great Northern, "and short lines dependent upon said railroads for car supply," should not place cars for loading or accept billing for shipments of carload freight from points within California to points outside that state, except (1) government freight, (2) fresh fruits and vegetables in refrigerator cars, (3) livestock, (4) shipments consigned to points in Oregon and Washington, and (5) freight unloaded from vessels at ports.

Another I. C. C. order, made public April 3 and effective until further notice on and after April 10, suspended tariff provisions under which carload shipments of fresh or green fruits and vegetables from points in the South to points north of the Potomac River could be held for diversion or reconsignment at various points south of Potomac Yard, Va.

This restriction, taking the form of Service Order No. 115, was necessary to prevent undue delay in train movements and shortage in equipment, the commission indicated.

Shipments originating in Florida, Georgia, Alabama, Mississippi and Louisiana were subject to the terms of this order, which provided that such shipments could not be held for diversion at points on the Atlantic Coast Line east of Atlanta, Ga., and north of Waycross, on the Seaboard Air Line and the Southern east of Atlanta

Canada to Have Railway Military Force

The formation of a limited number of Canadian railway troop units to serve overseas with the Canadian Army, has been announced at Ottawa. A "comb-out" for personnel with railway experience is now being carried out throughout the Canadian Army and enlistments, open to experienced railroad men, are being accepted for these units. They will undergo a short period of basic military training before proceeding overseas.

Some exceptions are being granted from the usual Army physical and age standards. Engineers, firemen and brakemen, will however, be required to rate category "A" on vision tests.

Lt.-Col. F. E. Wootton, until recently A. A. & Q. M. G. at Petawawa Military Camp, and a railroader with construction and operating experience, has been given the task of organizing these troops, in conjunction with officers of the C. N. and C. P.

and north of Savannah, Ga., and on the Richmond, Fredericksburg & Potomac at Richmond, Va., and north.

Service orders of the commission previously issued were extended or modified by amendments recently made public. Service Order No. 80, which was effective July 22, 1942, will continue in effect until December 31 of this year under the provisions of amendment No. 8 thereto. The purpose of this order was to set up a permit system for grain movements, as reported in *Railway Age* of July 25, 1942, page 146. Service Orders No. 112—in which restrictions are provided on free time on fruit and vegetable shipments in refrigerator cars—and No. 113—establishing special demurrage charges on flat cars—both were amended to apply specifically to intrastate as well as interstate commerce on all common carrier railroads. Certain types of flat cars used in pulpwood and log movements (A. A. R. designations LP, FL, and FM) were exempted from the provisions of the demurrage order.

OPA Answers Some Questions on 3 Per Cent Freight Tax

A summary of rulings and interpretations by the Office of Price Administration on the application of the 3 per cent federal transportation tax under its Supplementary Order No. 31 and exceptions thereto was made public April 2 in the form of a 10-page press release (OPA-2138) setting forth 29 questions and answers dealing with the subject. Many of the explanations involved situations in which shipping points differ from price basing points, and the effect on such special conditions not only of the general "freeze" regulations but also of those which specify the points where maximum prices apply.

Union Leaders Air Views on Manpower

Truman Committee elicits
more heat than light on
featherbedding

Spokesmen for four railroad unions appeared before a Senate committee on April 2 to give their opinions on various questions involved in realizing a maximum degree of manpower utilization to meet wartime demands, Senator Truman, Democrat of Missouri and chairman of the Senate's special committee to investigate the national defense program, prefaced their remarks by pointing out that the committee at the time was particularly interested in inflation control, reduction of absenteeism, relief of manpower shortages, and featherbed regulations affecting railroad labor.

The first witness was Thomas C. Cashen, president of the Switchmen's Union of North America and chairman of the Railway Labor Executives Association. Mr. Cashen introduced into the record the so-called 13-point program developed by a committee of union leaders and railroad officers, with the approval of Director Eastman of the Office of Defense Transportation, to alleviate manpower problems in the railroad industry, the details of which were reported in *Railway Age* of February 6, page 329. Measures taken to make effective the principles set forth in this program were resulting in many employees working longer hours, he said, and in a relaxation of some work restrictions.

Mr. Cashen declared that absenteeism has not been a problem in the railroad industry, though he was unable to give the committee statistical support for his assertion. He did, however, suggest that absenteeism could be still further reduced through greater attention by government agencies to personal problems facing employees, such as relieving housing shortages and applying a more effective draft exemption policy to skilled men. The practice of continuously taking experienced men from the industry for military duty and training new men to replace them he called a mistake, referring to the general exemption of skilled railroad workers which he said was applied in World War I. While the turnover in railway employees is "very high," as he put it, the witness explained that unskilled maintenance of way and clerical groups accounted for most of it.

When Senator Brewster, Republican of Maine, began to question Mr. Cashen on featherbedding, saying that he, being unfamiliar with the railroad industry, did not know what the term means, the witness said that he did not know either, though he was sure it did not apply to switchmen.

H. W. Fraser, president of the Order of Railway Conductors, agreed with Mr. Cashen that avoidable absenteeism is very low among railroad employees. Outlining briefly dual mileage and time basis on which conductors' pay scales are based,

the witness informed the committee that the 13-point program had resulted in a relaxation in the monthly mileage limitations on conductors' working time, with the result that their average monthly earnings and hours worked had increased considerably. As a result the older men were under greater strain, he said, resulting in more personal accidents and infringements of the rules due to fatigue. An important contributing factor was the failure to provide materials for the construction of more cabooses, he added, since a shortage of such equipment often affected the efficiency of road conductors.

Answering questions about the effect of wartime traffic on railroad equipment in general, and particularly on cars and locomotives kept in service beyond their normal retirement point, Mr. Fraser expressed the opinion that much of this equipment would not stand up long under the load. In this connection Senator Brewster remarked that he had been reliably informed that the enemy expects the American war production machine to "crack" by a breakdown in railroad rolling stock.

Jonas McBride, Washington, D. C., representative of the Brotherhood of Locomotive Firemen and Enginemen, read into the record a prepared statement which in general upheld the unions' arguments for a wage increase, called for draft exemptions for skilled men, discounted the importance of absenteeism as a factor in the manpower shortage on railroads, and accused railroad managements of taking advantage of the war to break down legislative safeguards protecting rail employees. Admitting that on "some" fast runs "a handful" of men put in less monthly working time than the average, due to mileage restrictions and other provisions of their working agreements, the statement asserted that railroad managements, "when left to themselves," do not object to this situation because such rules "do not interfere with the war effort." The only objections come from propagandists "taking on the cloak of patriotism," it added.

This witness was unable to give the committee any figures on the average monthly earnings or hours worked by members of his union, or to estimate the percentage of them employed on "crack" trains subject to mileage and other featherbed rules.

The final witness before the committee was A. F. Whitney, president of the Brotherhood of Railroad Trainmen, whose statement denied that railroad labor was interfering with the war effort by insisting on retaining long-standing featherbed regulations. On the contrary, he declared, the committee would uncover "one of the major scandals of the war" if it would go to the bottom of the "misuse" of manpower on the railroads through the "ineptitude, bungling, and penny-pinching practices" of railroad managements.

The Interstate Commerce Commission, said Mr. Whitney, which produces the statistics on time paid for but not worked which are the "basis for the confusion of the public mind through propaganda" about featherbedding, also should publish figures showing employees' "time used but not

paid for." It is not the employee's fault, he declared, if he has to wait for a chance to work after he has been called for duty, but it is management's fault that he is kept waiting many hours for a call, particularly away from home. "More manpower is wasted on the railroads of America than in any other industry," Mr. Whitney informed the committee. He went on to say that he has "serious doubts" if there is any manpower shortage on the railroads that could not be overcome by transfer of men from localities where there is a surplus of available labor to localities where there is a shortage.

ODT Enlarges Staff

Appointment of J. W. Stevenson as assistant director in charge of the passenger section of the Division of Traffic Movement of the Office of Defense Transportation was announced April 3 by ODT Director Joseph B. Eastman. Mr. Stevenson has been granted six months leave of absence from his position as assistant passenger traffic manager of the Illinois Central at



J. W. Stevenson

Chicago. Mr. Stevenson was born in Chicago on September 17, 1888, and entered railway service in 1903 as an office boy for the Western Passenger Association. After subsequent service on the Chicago Great Western as a rate clerk, he entered the employ of the Illinois Central in the same capacity in 1912. In two years he rose to chief clerk of the passenger department, and in 1920, after a short service as district passenger agent in Chicago, became chief clerk of the traffic department. In 1921, he was promoted to assistant general passenger agent, which position he held until March, 1937, when he was advanced to assistant passenger traffic manager.

On the same day Mr. Eastman announced the opening of three additional field offices by the ODT's Division of Railway Transport. Ethan A. Ashley, assistant trainmaster of the Chicago, Rock Island & Pacific at Denver, Colo., has been appointed supervisor of rail terminals

for the ODT at that point. Charles Fowler, also recently in the service of the Rock Island, has been made assistant director of rail terminals at Phoenix, Ariz. To enable the ODT to maintain a close check on the greatly expanded oil movement in southern Illinois, Ralph S. Best, train dispatcher of the Chicago, Burlington & Quincy at Beardstown, Ill., has been appointed supervisor of rail terminals with headquarters at Mt. Carmel, Ill.

Brewers Seeking Another Plan to Save Car-Miles

Because no program yet submitted to accomplish a 10 per cent reduction in car miles used by the brewing industry has obtained the approval of the industry and the War Production Board, the industry committee meeting with WPB representatives last week appointed a 3-man "task committee" to work with government agencies to formulate an acceptable plan, the WPB announced April 5.

Truckers Form Advisory Group

A common motor carrier advisory committee of the Office of Price Administration was organized at a meeting in Chicago March 24 and 25, at which George F. Whitehead, of the Arrow Carrier Corporation, Paterson, N. J., was elected chairman, and Evans A. Nash, of the Yellow Car Transit Company, Oklahoma City, Okla., was named secretary. The committee includes representatives of 13 motor freight and storage companies. It will work with OPA representatives on pricing problems of common carrier truck operators an OPA statement indicated.

ODT Bus and Truck Reports Due

Operators of three or more motor trucks or buses were reminded this week by the Office of Defense Transportation that quarterly reports of operations for the first quarter of 1943 are due by May 1. The reports, on blanks supplied when ODT Certificates of Necessity were issued, are necessary, the ODT said, to determine the effectiveness of its mileage conservation measures. While the forms include 24 questions, no operator is required to answer more than 16 and some will answer only 10, the statement pointed out. Eight questions have been eliminated since the form was mailed.

Paper Industry to Do More to Conserve Transportation

While average carload weights of paper of various types were reported to be from 10 to 35 per cent heavier in November, 1942, than in the year 1938, it was the feeling of the paper industry's transportation advisory committee that "much more could be accomplished within the industry itself to conserve transportation," the War Production Board stated on April 1.

Among recommendations made by the committee intended to expedite car movement and increase the average load, the WPB statement referred to avoidance of car detention, routing to keep freight out of congested areas, elimination of unnecessary hauling, and proposed standards, which have been submitted to the Office of De-

fense Transportation, for loading various kinds of paper, paperboard and paper articles. Such action was considered essential by the committee, it was pointed out, because the transportation situation was considered to be "tight," with gains effected by heavier loading offset by decreasing car supply, increased time of turn around, and slowing of transit.

ODT Stops Another Convention

Director Eastman of the Office of Defense Transportation announced on April 7 that the Illinois Congress of Parents and Teachers had agreed to cancel an annual convention at Peoria, Ill., next week when the ODT pointed out to its officers that advance reservations by persons planning to attend the meeting had resulted in a sell-out of all space on two trains between Chicago and Peoria, leading the railroad to apply to the ODT for a permit to operate second sections to accommodate essential travel.

House Approves Waterway Funds

The House of Representatives on April 1 passed H.R. 2346, the War Department Civil Functions Appropriation Bill for the fiscal year ended June 30, 1944. As noted in the *Railway Age* of April 3, page 689, the bill carries no funds for the proposed Florida Ship Canal, although Senator Pepper, Democrat of Florida, served notice on April 7 that he and five other senators would propose an amendment to provide such funds when the bill comes before the Senate.

For rivers and harbors work it carries a new appropriation of \$35,700,000 for maintenance of existing works; and it re-appropriates, from funds available from previous appropriations, \$3,200,000 for new work and \$2,000,000 for the preparation of plans which, as the committee put it, would add "to the backlog of useful projects that may be promptly undertaken upon the conclusion of peace to cushion the readjustment from war to normal conditions."

WPB Head Opposed to Divided Production Control

Emphasizing his belief that "production is a common problem to be managed by a single agency," Donald M. Nelson, chairman of the War Production Board appeared before the Senate Committee on Banking and Currency April 8 in opposition to a bill (S. 885) introduced by Senator Maloney, Democrat of Connecticut, providing for an independent civilian supply office to represent essential civilian activities in much the same way that the military services are represented in the distribution of critical materials and the use of productive facilities and services.

"The concept of a claimant for civilians is confusing," said Mr. Nelson, because it "implies that the civilian portion of our population is seeking to get something which it does not have." Conceding that errors of judgment may have been made, he stressed his opinion that the WPB had exercised its "indivisible" responsibility for production with due consideration to the

relative importance of civilian and military needs as "difficult choices involved in parceling out to competing demands the factors of production" were presented to it as a central agency with an "overall view" of all demands and all facilities. Congress should put its power behind an agency "which devotes itself constantly to measuring the minimum below which it is not safe to permit civilians to go," he declared, and should "make explicit the policy that our civilians should not give so much that their health, safety and productive efficiency is crippled thereby."

Canadian Roads to Cancel Reduced Fares

Special inducements to travel, in the form of reduced fares have been cancelled on Canadian railways for a test period from April 15 to August 15, according to an announcement by the Dominion Transport and Munitions Departments at Ottawa.

The purpose of the test period is to ascertain whether abolition of these fares will curtail civilian passenger travel, relieving wartime pressure on the railways. In addition to abolishing week-end fares, the ruling cancels special Easter fares and other holiday excursions and, to discourage convention travel, it also ends special fares granted to parties of ten or more persons.

In announcing the test period, Dominion Transport Controller Lockwood said, "despite restrictions on the use of dining cars, chair cars and sleepers, by the limiting of extra sections and by cancellations of special trains, passenger traffic has continued to rise in volume and thus it has become necessary to try this experiment."

Waugh Builds Surgical Device for Armed Forces

The Waugh Equipment Company is delivering its first orders for "Berman metal locators" to the medical services of the United States Army and the United States Navy. The development of this device, which promises to aid surgeons in saving lives during the present war, is the invention of a railway electrical engineer and is manufactured by a railway supply company. During 1939, while engaged in a series of tests for the New York Subway System, the engineers of the Waugh Equipment Company became interested in the work being done at that time by Samuel Berman, then electrical engineer of the subway, in the development of an electro-

magnetic means of locating metallic fragments buried in human flesh.

This development had been encouraged by Dr. John J. Morehead, the medical director of the subway system, who had suggested to Mr. Berman that such a device would be useful in industrial hospitals. The first demonstration of the device was on one of the policemen injured in the New York World's Fair bomb explosion who continued to suffer pain after apparent recovery from his injury. The device located a small fragment deeply embedded in a tendon. Late in 1941 Dr. Morehead, on duty as an officer in the Medical Corps of the United States Army, was called to Hawaii to deliver a series of lectures in traumatic surgery. He had with him the first model of the locator, which had its second practical demonstration immediately following the Pearl Harbor disaster where its effective use attracted wide attention. Following further refinements in the device, Mr. Berman joined the Waugh Equipment Company in December, 1942, and a plant has been equipped for the manufacture of the device, on orders from the federal government, and from a number of patriotic organizations for presentation to the armed services.

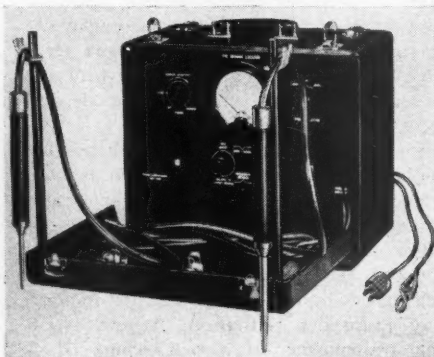
Kendall Urges Railroad Support of ODT-ICC Grain Committee

Railroads have been urged by W. C. Kendall, chairman of the Car Service Division, to give "the maximum possible support in every respect" to the Grain and Grain Products Transportation Conservation Committee which has been organized under the joint auspices of the Office of Defense Transportation and the Interstate Commerce Commission. The organization of the committee was noted in the *Railway Age* of March 27, page 638.

Mr. Kendall's appeal came in a March 30 circular which revealed that the committee will direct special attention toward "correcting practices involving circuitous or back haul movements in connection with inspection, grading or transit; delays on the part of industries in loading and unloading, or in giving disposition for cars; unnecessary set-backs or reconsignments; use of the reconsignment or diversion privilege to 'break' demurrage, etc."

"It is the desire of the committee," as Mr. Kendall put it, "to demonstrate that a greater volume of car days can be saved through voluntary limitation by the trade of privileges now allowed than by arbitrary limitation or abrogation of tariff rules and regulations applicable thereto." He added that railroads should aid in accomplishing this by supplying "all possible facts as to irregularities of this sort and suggestions as to procedure for the committee to follow." And if in any instance a railroad "feels it undesirable because of competitive conditions to bring to the attention of the committee derelictions of the grain or milling trade, such information should be passed in confidence" to the Car Service Division's district manager who "will see that it is used without involving any individual railroad."

Mr. Kendall also warned that if voluntary measures are unsuccessful, "recommenda-



The Berman Locator

tion will be made to the ODT and ICC for such mandatory action as may be practicable." "Facing a critically close grain and flour car supply, and with no prospects for additional new box cars this year," he went on, "it is highly essential from the standpoint of both the railroads and their patrons that maximum box car efficiency be accomplished. While these objectives are mutual, the fact that this committee is working as much in our interest as in their own certainly makes it incumbent that railroads give the new organization the maximum possible support in every respect."

Oil Movement Was Record Last Week

(Continued from page 727)

If all of the projected work is completed, the potential unloading capacity of the Atlantic coast oil terminals will be increased about 200,000 barrels a day, Mr. Eastman pointed out. The extent to which this capacity is utilized will depend, however, he added, on other factors, such as the manpower supply, improvement in the solid train movement of tank cars, and the volume of oil of different types handled. Substantial improvement in daily average rail movements of oil will result, he said, because recent efforts of the railroads and the ODT to improve the operation of solid tank car trains in the East coast oil traffic have "bumped up against this ceiling" of unloading capacity.

Meanwhile, Mr. Ickes was busy with pipeline projects expected to contribute further relief to the scarcity of petroleum products in district No. 1, the Atlantic coast region, as statements from his office the same day indicated. Shipments by barge and tank car from the Richmond, Va., terminal of the new extension of the so-called Plantation pipeline should start moving north around the middle of this month he announced. While the initial capacity of the extension will be about 15,000 barrels a day, this will be stepped up to 30,000 barrels a day as additional pumping stations are put into service.

Another announcement from the PAW office disclosed that the War Production Board had approved the extension to the East coast of a second emergency pipeline from the southwest, the first section of which—from the Texas refineries to Indiana—was approved in January. When fully completed, this pipeline is expected to have a capacity of about 235,000 barrels a day, and it is planned to have it delivering about two-thirds of that volume of refinery products by the end of the year.

On the same day Mr. Ickes issued Petroleum Directive No. 65, intended to set up what his office described as a "far-reaching rearrangement of the entire petroleum supply and distribution system of the Middle West." The 15 states making up PAW district No. 2 are affected by this order, the primary purpose of which, said Mr. Ickes, is maximum use of all transportation facilities under wartime conditions. The program which the order

is intended to implement is designed to coordinate the supply and distribution of petroleum in the 15 states "as though it were all distributed by a single company," he explained. The territory has been divided into 26 zones for distribution of gasoline, kerosene and heating oil, and 11 ones for the distribution of residual oils. Purchasers will continue to place their orders as usual, but deliveries will be made from the nearest terminal supply point, through a system of "exchanges, loans, sales and purchases" operated among members of the industry.

The PAW's new order is expected to release "mobile transportation equipment" for use in the East coast oil movement, the Petroleum Administrator pointed out, through reducing the length of hauls within district No. 2, through substitution of northward and eastward movements for most southerly and westerly movements resulting from existing practices, through reductions in cross-hauling and back-hauling, and through substitution of pipeline movements, in many cases, for tank car, truck, barge, or lake tanker facilities.

Rail deliveries of petroleum products into district No. 1 meanwhile were continuing on the level of recent weeks, Mr. Ickes announced April 1 in the weekly bulletin on operations in the week ended March 27. The daily average of tank car shipments for the week was 824,657 barrels, an increase of 16,778 barrels a day from the previous week. Box car shipments of kerosene in drums received in New England averaged 21,253 barrels daily, a decrease of 3,040 barrels a day from the week before.

Sees No Need for Legislation Increasing Demurrage Rates

Reporting on the resolution introduced in the last Congress by Senator Reed, Republican of Kansas, to establish drastically increased demurrage charges running up to \$25 a day and to reduce the free time allowed for loading and unloading freight cars, a subcommittee of the Senate committee on interstate commerce has found no need for such legislation at this time. The subcommittee, consisting of Senators Johnson of Colorado, and Tunnell of Delaware, Democrats, and Reed, held hearings on the measure on June 30 and July 1, last year.

Those hearings, said the subcommittee report, "centered attention upon this important transportation problem, which apparently has led to the adoption of corrective measures." In the latter connection the report list Interstate Commerce Commission service orders and changes in rules and regulations which have tended "to increase the rate of demurrage, or reduce the 'free time' allowed shippers in effecting release of equipment."

Among the material included in the report is a March 13, 1943, letter which Senator Reed received from W. C. Kendall, chairman of the Car Service Division, Association of American Railroads. Mr. Kendall told how the railroads, following discussions with I. C. C. Commissioner Johnson, have adopted the plan of placing embargoes against industries where cars

are tied up. Mr. Kendall said that "no consignee is too large or too small to be embargoed," adding that during the past several weeks embargoes have been placed against such establishments as the Aberdeen (Md.) Proving Ground, and the Naval Ammunition Depot at Hawthorne, Nev.

Post-War Planning for Alaska

The "proper" post-war realization of industrial and commercial opportunities to be opened up by the new Canadian-Alaskan military highway will "affect the whole economic structure of the North American continent," Secretary of the Interior Harold L. Ickes stated April 8 in announcing that the National Park Service has been directed to work with the War Department in making a study to insure the orderly development of the territory bordering the 1,360 miles of the road in Alaska.

A strip of land 20 miles in depth on each side of the highway has been withdrawn from settlement or private use pending approval of land utilization plans and projects designed to "cushion" post-war unemployment.

Wheeler Bill Would Legalize Carrier Rate Bureaus

An Interstate Commerce Act amendment which would give legal recognition to the activities of rail, motor, water carrier, and freight forwarder rate bureaus, placing them under the control and supervision of the Interstate Commerce Commission, is proposed in S.942 which has been introduced in the Senate by Chairman Wheeler of the committee on interstate commerce. The proposal for such legislation, which Senator Wheeler said had been urged recently by the I. C. C., follows upon the Office of Defense Transportation's March 27 statement announcing that such bureaus, if conducted in accordance with I. C. C. regulations, would be immune from Anti-Trust-Act prosecution under a certificate issued by War Production Board Chairman Donald M. Nelson.

On the same day that Mr. Wheeler offered his bill, the immunity arrangements were assailed by Senator Shipstead, Republican, of Minnesota, who introduced Senate Resolution 125, calling for a Senate interstate commerce committee investigation of the matter. Mr. Shipstead characterized the activities of the rate bureaus as "illegal," adding that the Nelson certificate amounts to "an act by the [government] bureaus to defeat the will of Congress by means of an executive order." The immunity arrangements and I. C. C. rules, as announced by ODT, were reported in the *Railway Age* of April 3, page 685.

Explaining the purpose of his bill, Senator Wheeler recalled how the Department of Justice had been active during the past year in bringing anti-trust proceedings against rate bureaus. He noted that the Interstate Commerce Act provides only that rates shall be initiated by individual carriers, adding, however, that group rate-making has been prevalent for many years in the railroad field, and has been adopted also by motor and water carriers and for-

warders. Because "practices have developed which have resulted in abuses detrimental to the public interest," Mr. Wheeler sees two courses open to Congress—it can either outlaw the bureaus or surround their operation with "appropriate safeguards." Mr. Wheeler's bill is designed to do the latter.

It would write into the Act rules and regulations governing the bureaus, the proposed regulations being along the lines of those issued by the I. C. C. in connection with WPB Chairman Nelson's certificate. To insure that the I. C. C. would be "informed immediately" of all activities of the bureaus, the Wheeler bill stipulates that all bureau meetings "shall be presided over by an employee of the commission."

Mr. Shipstead's resolution specified that the interstate commerce committee investigation it called for should go into the methods by which rates are made "in violation of law, through agreement among

competing common carriers"; the extent to which "such illegal rate making has brought about and perpetuated freight rate discrimination against the Southern and Western states"; and "the effort of the Chairman of the War Production Board to legalize, by administrative fiat . . . , such illegal rate-making practices and freight-rate discriminations."

In his discussion of the resolution, Mr. Shipstead talked about each of those three propositions, and reviewed former Assistant Attorney General Thurman Arnold's activities against the rate bureaus. He inserted in the Congressional Record various pertinent documents, including correspondence bearing on Attorney General Biddle's January 4 announcement to the effect that he was acceding to the request of Secretary of War Stimson, Secretary of the Navy Knox and ODT Director Eastman that the then-pending Chicago proceedings be postponed for the duration.

Materials and Prices

Following is a digest of orders and notices of interest to railroads issued by the War Production Board and the Office of Price Administration since March 27.

Forgings—Maximum Price Regulation No. 351 (ferrous forgings), effective March 31, brings under a separate regulation ferrous forgings but does not change current price levels which were previously established by Maximum Price Regulation No. 136 (machines and parts and machinery services). The regulation does not extend to chains, hand tools, expendable tools, products covered by Revised Price Schedule No. 6 (iron and steel products) and automotive parts covered by Regulation No. 136. Forgings which are a component or repair part of a machine or device when sold by the manufacturer of that machine or device are excluded from the regulation since they are already under price control of other regulations. The base date for pricing under the formulas set forth in the regulation remains October 1, 1941. However, the regulation freezes all list prices in effect on October 1, 1941, and provides that ceilings for ferrous forgings sold without list prices between January 1, 1941, and October 1, 1941, shall be the prices of the items at their last contract of sale during that period. In addition, a new forging which is closely comparable to a forging which a producer agreed to sell during this period is priced on the basis of the difference in unit costs between the two forgings resulting from the change in specifications.

Fuel oil—Amendment 87 to Revised Price Schedule 88, effective March 26, authorized a 25-cent per bbl. increase in maximum prices for heavy fuel oils and a graduated increase for heavy crudes produced on the West Coast. At the same time, the maximum prices of West Coast asphalt were increased \$1.40 a ton to reflect the higher crude prices. The new schedule of maximum prices applies to crude of 15 deg. A. P. I. gravity. The maximum price in a given field also applies to all gravities of crude above 15 deg. for which prevailing maximum prices are below the adjusted maximum price for 15 gravity crude.

Gray iron castings—Amendment No. 4 to Maximum Price Regulation No. 244 (gray iron castings), effective March 27, establishes formulas for sellers of products containing gray iron castings or of castings alone to determine whether their products should be priced under the maximum price regulation for gray iron castings or under some other price regulation. The regulation covers sales of gray iron castings by commercial and also by captive foundries, which in normal times make castings only for their own use. Excluded from the term gray iron castings are gray iron castings sold in an assembly with other materials, except bolts, nuts, screws, rivets or other industrial fastenings; castings purchased from the seller on which the purchaser has performed subsequent processing; castings sold as another commodity by a regular manufacturer of

such other commodity or by a purchaser from such manufacturer; and castings for which maximum prices are established by Revised Maximum Price Regulation No. 236, covering heating boiler conversion parts. A person who seeks an adjustment of his maximum prices or an amendment of the regulation and who is not selling under government contracts or subcontracts may not price his castings at the requested prices, pending decision on his application, unless he first secures consent. Formerly he could do so without obtaining consent.

Lumber—Amendment No. 1 to Maximum Price Regulation No. 94, effective April 5, established dollar-and-cents ceilings on Western pine and associated species of lumber produced in South Dakota, Wyoming, Colorado, Utah, Nevada, Arizona and New Mexico. The effect of the action is to extend this geographical scope of the regulation to all species commercially sold as Western, Ponderosa or Mexican pine, including lodgepole pine, Mexican white pine, Chihuahuah pine, limber pine and Arizona pine. All pine produced in Mexico and sold in this country is under the regulation. A revised method of deductions from ceiling prices for dry lumber effects a raise in the price for green lumber under the regulation. Instead of deducting 15 per cent from the price of the grade and species of dry lumber, producers may now deduct \$2 for No. 1 and lower grade of commons and dimension from the ceilings for the dry lumber of the same grade. The small fringe mills located in the Rocky Mountain area in South Dakota, Wyoming, Utah, Colorado, New Mexico and Arizona, which are not equipped to sort and grade the various species, are permitted to continue selling on their usual basis—that is, at a fixed price for log run mixed species. The amendment establishes prices for the mixed species sold by these mills and the ceiling reflects the average of prices for the grades produced adjusted to the saving resulting from not grading or sorting. A basic price for rough green log run mixed species is set at \$28.50 per m.b.f. Additions of \$2 for drying and \$3 for surfacing per m.b.f. are included. Provisions for deliveries by private truck are amended to permit deliveries where no railroad transportation is available or where the purchaser could not use a carload of lumber and customarily purchased in small truckload amounts. Provisions for additions for restricted random lengths wherever they appear in the regulation have been expanded to include 18 and 20 ft. lengths as well as 10 to 16 ft. lengths, and also to include 5/4 in. and thicker stock as well as 3/4 in. stock. A provision for the addition of \$2 for specified lengths of No. 4 and No. 5 common has been narrowed to 10 to 20 ft. lengths. Eight-foot lengths will now take the same price as random length, and a \$3 deduction is provided for 6 ft. lengths. The provision applies to all species. Specific prices have been set for specified widths of No. 5 common, and a price also has been established on 1 by 6 and

wider No. 5 common. Under all plank and timber tables, a specific price has been provided for No. 3 plank and timbers and a random length ceiling has been set. Some changes have been made in estimated weight tables, particularly those covering Larch-Douglas fir.

Amendment No. 2 to Maximum Price Regulation No. 222, effective April 2, reduced prices for jack pine lumber produced in Minnesota, Wisconsin and Michigan and brought them in line with ceilings previously established for white pine and other northern softwood lumber cut in the same area. Jack pine lumber was transferred from the General Maximum Price Regulation to the specific regulation on northern softwood lumber. The amendment restores the normal differentials between white pine and jack pine prices by listing specific prices for graded common boards \$2 below the white pine ceiling in the No. 1 grade, and \$3 below the white pine ceilings for the No. 2 and No. 3 grades. Provision is also made in the amendment for the inclusion of jack pine in mixed northern softwood sales. A special price, \$3 more than the ceiling for No. 4 common, is established for jack pine boards in the grade of No. 4 common and better, which represents the bulk of production, when it contains at least 60 per cent No. 3 common and better.

Amendment No. 4 to Maximum Price Regulation No. 215, effective March 31, revised the definition of dimension lumber in the price regulation on distribution yard sales of softwood lumber stock up to 24 ft. in length and to conform to descriptions of dimension lumber in other lumber regulations. Dimension lumber now covers all items two inches in thickness in the width of 12 in. or less and up to 24 ft. in length. Previously only two-inch stock items up to 22 ft. in length were classed as dimension by the regulation.

Motor trucks—Maximum Price Regulation No. 341 (used commercial motor vehicles), effective April 26, established price ceilings and price formulas for all sales of used commercial motor vehicles by dealers or individuals, except passenger automobiles, station wagons, vehicles operated on rails, self-tracklaying vehicles or farm and garden tractors. Two pricing methods are provided for resales, one for the vehicles as is, the other for those reconditioned and guaranteed for at least 1,000 miles or 30 days. In making a sale on an "as is" basis, the seller must ascertain the base price for the vehicle, which will be the value when new at the factory, plus carload freight to the place where it is to be sold. The maximum price at which he can sell his used vehicle will be the percentage given in a table, determined in accordance with the age of the vehicle. For purposes of ready reference, over 8,000 prices which are the values when new of commercial motor vehicles are incorporated in an appendix to the regulation. The percentages allowed for "as is" vehicles are 90 per cent for equipment 6 months old or less; 81 per cent from 6 months to 12 months; 73 per cent from 12 to 18; 66 per cent from 18 to 24; 59 per cent from 24 to 30; 53 per cent from 30 to 36; 48 per cent from 36 to 42; 43 per cent from 42 to 48; 39 per cent from 48 to 54; 35 per cent from 54 to 60; 32 per cent from 60 to 66; 29 per cent from 66 months to 72 months; and 26 per cent for equipment more than 72 months old.

Steel castings—Amendment No. 5 to Revised Price Schedule No. 41, effective March 28, authorized foundries to add transportation costs above 50 cents per 100 lb. to their maximum prices for castings to be delivered far beyond their normal marketing areas. Foundries are also permitted to sell castings in shipments of less than 100 lb. f.o.b. the foundry, instead of delivered. A small volume of castings whose production cost per order is estimated to be less than \$100 were exempted from price control.

Rejected material—A circular, issued by the Recording Secretary of WPB, provides that a producer of controlled materials, as defined in CMP Regulation No. 1, whose material has been rejected by a customer, may replace that portion of material which has been rejected without the extension of an additional allotment and shall give such tonnage preference in his production schedule. If, however, this replaced shipment cannot be made in time to meet the delivery requirements of his customer, he must immediately notify, in writing, the Chief of the appropriate Product Section, Steel Division, giving a full explanation.

GENERAL NEWS

Congress Gets Two Uniform Rate Bills

Would issue directives to I.C.C., thus carrying out Study Board recommendations

Bills designed to carry out the legislative recommendations of the Transportation Board of Investigation and Research's report on interterritorial freight rates were introduced in both branches of Congress within a few days after the report reached Capitol Hill. The Senate bill is S.947, introduced by Senator Overton of Louisiana for himself and Senator McClellan of Arkansas, both Democrats; while the House got H.R.2378 and H.R.2391, introduced respectively by Representative Priest, Democrat of Tennessee, and Representative Brooks, Republican of Illinois.

As noted in the *Railway Age* of April 3, page 664, the B. I. R. majority, consisting of R. E. Webb and C. E. Childe, made the legislative recommendations which were among the things in the majority report that Board Chairman Nelson Lee Smith, the dissenter, did not like. The recommendations called for (1) a declaration of national policy favoring a uniform classification and a generally uniform scale of class rates, and (2) a direction to the Interstate Commerce Commission to carry out this policy by preparing within nine months after adoption of the legislation a proposed uniform classification and scale of class rates, by holding hearings on these proposals within three months thereafter, and by issuing an order not later than two years from the commencement of the hearings to require the establishment of the classification and rate scales so developed.

All three bills follow these recommendations in their entirety, although the Overton-McClellan bill and the Brooks bill would embody them in a separate law, while the Priest bill is in the form of Interstate Commerce Act amendments. All would leave the way open for exceptions to the uniform classification and rates.

Meanwhile Representative Miller, Republican of Nebraska, announced in a statement appearing in the appendix to the April 2 Congressional Record that he also intended introducing legislation "which will compel the Interstate Commerce Commission to wipe out these discriminations." On the previous day, Representative Rankin, Democrat of Mississippi, asserted on the floor of the House that he was "going to appeal to the senators from the agricultural states of the South and Middle West to put a rider on the next bill that comes over there to outlaw those discriminations." The Miller and Rankin statements were

part of much ado about the interterritorial freight rate situation which has been going on in Congress during the past week or so, other like statements being noted in this issue's report of the I. C. C.'s final hearings in connection with its investigation of the class rate structure and Consolidated Freight Classification.

C. A. Gill Elected to Board of American Standards Assn.

Charles A. Gill, vice-president in charge of operation and maintenance of the Reading, has been elected a member of the board of directors of the American Standards Association—a federation of national groups dealing with standardization—to serve a three-year term effective January 1, 1943.

How to Avoid Socialism

Post-war transportation must be able to pay its own way and attract private investment or government subsidy and finally government ownership will be the alternative, according to Samuel B. Pettingill, vice-president and general counsel of the Transportation Association of America, in an address before the annual meeting of the Junior Traffic Club of Chicago on April 1.

"If transportation is nationalized, it is doubtful if any important branch of American business can escape state socialism," declared Mr. Pettingill, who served four terms as congressman from Indiana.

The soundest and safest course on the "rocky postwar road," Mr. Pettingill went on, is to "authorize a limited number of integrated transportation systems, each competitive with the other, and each able to furnish rail, truck, water or air service, as the convenience of the customer may require."

This he said would eliminate many redink operations by each type of service, would tend toward lowering distribution costs to 130 million people, would broaden the base of earnings behind transportation investments, and at the same time preserve free enterprise.

Posing the surplus of transportation facilities at the war's end against the financial condition of carriers in the 1930's, he said that it was not until 1939 that American aviation as a whole "broke even" despite public subsidies.

"Intercoastal and coastwise shipping were habitually broke," he said. "The number of trucking companies actually making any money was small, while 29 per cent of the railway mileage was in receivership, and 40 per cent was operating in the red. For all Class I roads in the 1932-36 period, net income after fixed charges was only one-quarter of 1 per cent on equity securities.

\$125 Million Net Income in 2 Mos.

Net railway operating income for the same period was \$211,474,311

Resuming its press releases on railroad earnings after a lapse of two months, the Association of American Railroads reported on April 3 that the Class I roads in the first two months of this year had an estimated net income, after interest and rentals, of \$125,000,000, as compared with \$49,843,853 in the first two months of 1942. The two months' net railway operating income, before interest and rentals, was \$211,474,311, compared with \$131,196,040 in the corresponding 1942 period.

In the 12 months ended with February 28, the Class I roads had a rate of return of 5.85 per cent on their property investment, as compared with 3.79 per cent in the 12 months ended with February 28, 1942.

February's estimated net income was \$62,000,000, compared with \$23,715,624 in February, 1942; while the net railway operating income for that month was \$106,132,776, compared with February, 1942's \$64,345,273.

Operating revenues in the two months totaled \$1,334,912,938 compared with \$943,170,944 in the same period in 1942, or an increase of 41.5 per cent. Operating expenses amounted to \$832,660,598, compared with \$676,342,869, an increase of 23.1 per cent. The gross for February totaled \$663,533,786 compared with \$462,482,830 in February, 1942, while operating expenses totaled \$408,459,307 compared with \$327,603,933 in the same month in 1942.

Class I roads in the two months paid \$260,414,072 in taxes, compared with \$112,238,102 in the same period in 1942. For February alone, the tax bill amounted to \$133,403,619, an increase of \$74,481,622 or 126.4 per cent above February, 1942. Twenty Class I roads failed to earn interest and rentals in the two months of 1943, of which nine were in the Eastern district, two in the Southern district, and nine in the Western district.

Class I roads in the Eastern district in the two months had an estimated net income of \$46,200,000 compared with \$19,286,256 in the same period last year. Their net railway operating income was \$80,310,835 compared with \$49,875,793 in the same period in 1942. The two months' gross in the Eastern district totaled \$591,600,521 an increase of 30.7 per cent compared with the same period in 1942, while operating expenses totaled \$396,379,322 an increase of 18.8 per cent above 1942. For February

alone the Eastern district's estimated net income was \$22,300,000 compared with \$8,174,880 in February, 1942. Net railway operating income amounted to \$39,735,204 compared with \$23,495,441 in February, 1942.

Class I roads in the Southern district in the two months had an estimated net income of \$25,900,000 compared with \$12,145,806, in the same period last year. They had a net railway operating income of \$36,798,196 compared with \$22,743,509 in the same period of 1942. Gross in the Southern district in the two months totaled \$205,189,136, an increase of 54.7 per cent compared with the same period in 1942, while operating expenses totaled \$115,243,722 an increase of twenty-five per cent above 1942. In the Southern District for February alone the estimated net income was \$12,600,000 compared with \$5,854,969 in February, 1942. Net railway operating income amounted to \$18,566,605 compared with \$11,745,815 in February, 1942.

Class I roads in the Western district in the two months had an estimated net income of \$52,900,000 compared with \$18,411,791 in the same period last year. Their net railway operating income was \$94,365,280 compared with \$58,576,738 in the same period in 1942. The two months' gross in the Western district totaled \$538,123,281, an increase of 50.3 per cent compared with the same period in 1942, while operating expenses totaled \$321,037,554 an increase of 28.2 per cent above 1942. For February alone the estimated net income in the Western district was \$27,100,000 compared with \$9,685,775 in February, 1942. Net railway operating income amounted to \$47,830,967 compared with \$29,104,017 in February, 1942.

CLASS I RAILROADS—UNITED STATES

	Month of February	
	1943	1942
Total operating revenues	\$663,533,786	\$462,482,803
Total operating expenses	408,459,307	327,603,933
Operating ratio—per cent	61.56	70.84
Taxes	133,403,619	58,921,997
Net railway operating income	106,132,776	64,345,273
(Earnings before charges)		
Net income, after charges (estimated) ..	62,000,000	23,715,624
Two Months Ended February 28		
Total operating revenues	\$1,334,912,938	\$943,170,944
Total operating expenses	832,660,598	676,342,869
Operating ratio—per cent	62.38	71.71
Taxes	260,414,072	112,238,102
Net railway operating income	211,474,311	131,196,040
(Earnings before charges)		
Net income, after charges (estimated) ..	125,000,000	49,843,853

L. N. E. R. Establishes Schools to Train New Clerks

Faced with the necessity of providing skill adequate to their duties for a host of new clerical employees, the London & North Eastern (England) recently opened a school for training these employees at Watton House, Herts. The school is under the direction of C. H. Newton, chief general manager of the road, with E. S. Hobbs, formerly chief clerk at Chesham station, as instructor. Intensive four

weeks' courses in railway accounting and routine office work in connection with freight and passenger stations is given to new employees. The first 20 pupils are young women, as most of the clerical help at present are female, but subsequent courses will be open to young men also.

Similar schools have already been established in buffet cars set out at Scarborough and Whitley Bay and another will be opened soon at Harrogate. The establishment at Watton House, however, also provides living quarters for those attending the courses—with the L. N. E. R. hotels department taking care of all domestic and catering arrangements.

Pettengill to Address N. Y. Railroad Club

The New York Railroad Club will hold its next meeting on April 15 with Samuel B. Pettengill, vice-president and general counsel of the Transportation Association of America, scheduled to deliver an address on the subject of "The Battle on the Home Front." The meeting will be held, as usual, at 7:45 p. m. at the Engineering Societies Building.

Woodlock Is Honored

Thomas F. Woodlock, former Interstate Commerce Commissioner, and in recent years contributing editor of the Wall Street Journal—and who has often in his long and distinguished career written and spoken wisely on railroad and other transportation subjects—has been awarded the Laetare Medal for 1943 by Notre Dame University. This award has been given once each year since 1883 to honor an accomplished citizen of the Roman Catholic faith.

President O'Donnell of Notre Dame, in announcing the award, cited, among Mr. Woodlock's other merits, the "ability and integrity which have characterized his work with the Wall Street Journal and with the Interstate Commerce Commission, bringing high principle and excellent example into the heart of the business and economic life of the country. . . . He has attacked the problems of our day with a clarity and a fortitude which have won for him pre-eminence as an apostle of truth."

Equipment Depreciation Orders

Equipment depreciation rates for the Illinois Central, Grand Trunk Western, and the Colorado & Southeastern have been prescribed by the Interstate Commerce Commission in new sub-orders and modifications of previous sub-orders in the general proceeding involving depreciation rates for equipment of steam railroad companies.

Rates for the I. C. are: Steam locomotives, 3.18 per cent; Diesel passenger locomotives, 6 per cent; Diesel switching locomotives, 3.92 per cent; freight-train cars, 4.1 per cent; articulated streamlined passenger-train cars, 6.97 per cent; non-articulated streamlined passenger-train cars, 3.84 per cent; Diesel rail motor cars, 15.76 per cent; all other passenger-train cars, 2.97 per cent; floating equipment, 3.26 per cent; work equipment, 3.26 per cent; miscellaneous equipment, 14.49 per cent. For the Grand Trunk Western, the following rates are prescribed: Steam loco-

motives—owned, 3.27 per cent, leased, 2.77 per cent; other locomotives—owned, 3.93 per cent, leased, 3.92 per cent; freight-train cars—owned, 3.3 per cent, leased, 3.03 per cent; passenger-train cars—owned, 4.46 per cent, leased, 2.83 per cent; work equipment, 3.67 per cent; miscellaneous equipment, 9.73 per cent.

Freight Car Loading

Loadings of revenue freight for the week ended April 3 totaled 772,133 cars, the Association of American Railroads announced on April 8. This was a decrease of 15,227 cars, or 1.9 per cent, below the preceding week, a decrease of 56,905 cars, or 6.9 per cent, below the corresponding week last year and an increase of 88,731 cars, or 13 per cent, above the comparable 1941 week.

Loading of revenue freight for the week ended March 27 totaled 787,360 cars and the summary for that week, compiled by the Car Service Division, A.A.R., follows:

Revenue Freight Car Loadings

For the Week Ended Saturday, March 27	District		
	1943	1942	1941
Eastern	162,877	167,777	180,563
Allegheny	178,736	182,285	180,620
Pocahontas	57,434	56,106	56,560
Southern	121,386	125,995	122,950
Northwestern ..	81,229	100,168	85,880
Central Western ..	117,690	113,106	114,308
Southwestern ..	68,008	62,849	52,922
Total Western Districts	266,927	276,123	253,110
Total All Roads ..	787,360	808,286	793,803
Commodities			
Grain and grain products	44,979	33,732	36,954
Live stock	13,740	10,807	10,395
Coal	179,702	156,180	168,827
Coke	15,192	13,840	13,785
Forest products ..	41,717	45,919	40,025
Ore	18,279	33,368	16,502
Merchandise l.c.l. ..	99,948	143,660	161,119
Miscellaneous ..	373,803	370,780	346,196
March 27	787,360	808,286	793,803
March 20	768,134	796,654	769,984
March 13	769,042	799,356	759,607
March 6	748,890	770,485	742,617
February 27	782,855	781,859	756,670
Cumulative Total, 13 Weeks	9,659,915	10,156,202	9,386,985

IN CANADA.—Car loadings for the week ended March 27 totaled 66,989 as compared with 62,191 for the preceding week and 62,369 for the corresponding week last year, according to the compilation of the Dominion Bureau of Statistics.

Total for Canada:	Total Cars	
	Loaded	Rec'd from Connections
March 27, 1943	66,989	40,034
March 20, 1943	62,191	40,198
March 13, 1943	60,946	35,729
March 28, 1942	62,369	34,083
Cumulative Totals for Canada:		
March 27, 1943	774,979	465,777
March 28, 1942	797,295	413,852
March 29, 1941	700,339	372,794

A. I. E. E. to Discuss Future of Freight Transport

The Transportation Group of the New York Section of the American Institute of Electrical Engineers will hold a joint meeting with the New York Electrical Society in the auditorium of the Engineering Societies Building, New York, on April 27 at 7:45 p. m. "Cargo Carrying Enters a New Era" is the topic chosen for discussion and the speakers will be Charles

Froasch, chief engineer of the Eastern Air Lines, who will review air cargo transportation during the past 15 years, and Samuel O. Dunn, chairman of the board of the Simmons-Boardman Publishing Corporation and editor of *Railway Age*—who will review the railways' remarkable performance in carrying freight during the present war period and the effect on the railways of competition in freight carrying in the post-war period.

Railroads Had 63,187 Women Employees in January

Inaugurating a new series of statistical statements, to be issued quarterly, the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission has disclosed that of the 1,319,480 Class I railroad employees reported at the middle of January, 1943, there were 63,187 women, or 4.79 per cent. Only 4 women employees were reported in train and engine service and only 745, or 0.35 per cent, in maintenance of way and structures. Of all the women employed, 76.18 per cent were included in the professional, clerical and general group, and only 1.37 per cent of

	Number of employees at middle of month		
	Male and female employees	Female employees	Per cent female
I. EXECUTIVES, OFFICIALS, AND STAFF ASSISTANTS			
Executives, general officers, and assistants.	6,177	11	0.18
Division officers, assistants, and staff assistants	7,416	7	.09
Total	13,593	18	.13
II. PROFESSIONAL, CLERICAL, AND GENERAL			
Professional and sub-professional assistants	7,045	67	.95
Supervisory or chief clerks (major departments)	3,400	47	1.38
Chief clerks (minor departments) and assistant chief clerk and supervising cashiers..	10,019	333	3.32
Clerks and clerical specialists (A)	10,345	692	6.69
Clerks (B and C)	103,805	21,683	20.89
Mechanical device operators (office)	7,535	5,893	78.21
Stenographers and secretaries (A)	3,445	1,699	49.32
Stenographers and typists (B)	15,419	11,198	72.62
Storekeepers, sales agents, and buyers	2,244	13	.58
Ticket agents and assistant ticket agents..	1,217	81	6.66
Traveling auditors or accountants	1,293	2	.15
Telephone switchboard operators and office assistants	4,822	3,978	82.50
Messengers and office boys	3,953	1,068	27.02
Elevator operators and other office attendants.	952	120	12.61
Lieutenants and sergeants of police	1,819	5	.27
Patrolmen and watchmen	11,311	7	.06
Traffic and various other agents, inspectors, investigators	10,482	72	.69
Claim agents or investigators	864	4	.46
Freight claim agents or investigators	379	11	2.90
Miscellaneous trades workers (other than plumbers)	817	18	2.20
Motor vehicle and motor car operators	3,470	36	1.04
Janitors and cleaners..	5,560	1,111	19.98
Total	210,196	48,138	22.90

the employees in the maintenance and transportation divisions were women.

The accompanying table indicates the number of women employed in each working classification in which any women employees were reported.

Sees Air Rates on Perishables Cheaper Than Rail

Former Assistant Attorney General Thurman W. Arnold, who is now an associate justice of the United States Court of Appeals for the District of Columbia, has been "told by the best people in the air industry that today you can transport all the fruits and vegetables in California to New York in 12 hours at a few cents a ton-mile with airplanes—a lower rate than the rail rate." Because he imagines that "a large percentage of the cost of fruits and vegetables in New York is transportation, Judge Arnold suggested that such air service would bring about an "enor-

mous increase of the consumer's dollar."

He spoke thus on February 19 in a statement to a House appropriations subcommittee which was considering fiscal 1944 appropriations for the State, Justice and Commerce departments. He was telling about the Department of Justice's anti-trust proceedings, including the investigations of transportation rate bureaus on which he had been so active just prior to his appointment to the bench.

Judge Arnold is "very hopeful" about anti-trust enforcement in the future. In the transportation field, for example, he thinks the new competition will help; and he cited the prospective air service noted above to indicate "what is happening." He also mentioned a "modern transport plane, about ready for use," which will carry "85 passengers across the country at one gallon a mile, or 1/85 of 20 cents fuel cost per passenger." Air transport "is going to be the cheapest transportation that the world

(News Continued on page 745)

	Number of employees at middle of month		
	Male and female employees	Female employees	Per cent female
III. MAINTENANCE OF WAY AND STRUCTURES			
Bridge and building carpenters	14,228	1	0.01
Bridge and building painters	2,652	5	.19
Maintenance of way and structures helpers and apprentices....	7,918	6	.08
Portable steam equipment operator helpers	548	1	.18
Pumping equipment operators	2,096	5	.24
Gang foremen (extra gang and work-train laborers)	3,902	1	.03
Extra gang men	43,588	375	.86
Section men	132,884	260	.20
Maintenance of way laborers (other than track and roadway) and gardeners and farmers..	4,139	91	2.20
Total	211,955	745	.35
IV. MAINTENANCE OF EQUIPMENT AND STORES			
Equipment, shop, electrical, material and supplies inspectors....	2,059	1	.05
Gang foremen and gang leaders (skilled labor)	7,746	2	.03
Boilermakers	13,531	2	.01
Carmen (A and B)	17,773	12	.07
Carmen (C and D)	56,925	4	.01
Electrical workers (A)	8,322	2	.02
Electrical workers (B)	2,556	2	.08
Machinists	47,702	4	.01
Sheet-metal workers...	10,317	1	.01
Skilled trades helpers (M. of E. and Stores)	86,686	1,039	1.20
Coach cleaners	11,639	3,263	28.04
Gang foremen (shops, enginehouses, and power plants)	1,293	55	4.25
Gang foremen (stores and ice, reclamation, and timber-treating plants)	1,185	13	1.10
Classified laborers (shops, enginehouses, and power plants)	26,637	1,005	3.77
General laborers (shops, enginehouses, and power plants)	25,789	2,629	10.19
General laborers (stores and ice, reclamation, and timber-treating plants)	16,430	1,386	8.44
Stationary engineers (steam)	1,681	15	.89
Stationary firemen, oilers, coal passers, and water tenders.....	3,410	4	.12
Total	341,681	9,439	2.76
V. TRANSPORTATION (OTHER THAN TRAIN, ENGINE, AND YARD)			
Train dispatchers	3,257	2	0.06
Station agents (supervisory—major stations—nontelegraphers)	2,238	1	.04
Station agents (smaller stations—nontelegraphers)	5,323	274	5.15
Station agents (telegraphers and telephoners)	14,153	266	1.88
Chief telegraphers and telephoners or wire chiefs	833	5	.60
Clerk-telegraphers and clerk-telephoners	10,352	585	5.65
Telegraphers, telephoners, and towermen	15,461	751	4.86
Baggage agents and assistants	346	13	3.76
Baggage, parcel, room, and station attendants.	8,280	594	7.17
Callers, loaders, scalers, sealers, and perishable-freight inspectors....	10,788	28	.26
Truckers (stations, warehouses, and platform)	24,329	181	.74
Laborers (coal and ore docks and grain elevators)	769	1	.13
Common laborers (stations, warehouses, platforms, and grain elevators)	4,348	31	.71
Stewards, restaurant and lodging-house managers, and dining-car supervisors	1,772	87	4.91
Chefs and cooks (restaurants or dining cars)	5,650	72	1.27
Waiters, camp cooks, kitchen helpers, etc...	14,984	1,186	7.92
Officers, workers, and attendants on barges, launches, ferry boats, towing vessels, and steamers, and shore workers	6,190	47	.76
Transportation and dining-service inspectors.	661	2	.30
Train attendants	3,546	94	2.65
Bridge operators and helpers	905	3	.33
Crossing and bridge flagmen and gatemen.	13,191	264	2.00
Foremen (laundry and laundry workers)	548	356	64.96
Total	147,924	4,843	3.27
VI. (b). TRANSPORTATION (TRAIN AND ENGINE)			
Road passenger brakemen and flagmen....	9,668	4	.04
Total	9,668	4	.04



PULLMAN INCORPORATED

SUMMARY OF ANNUAL REPORT FOR 1942

The 16th Annual Report of Pullman Incorporated, covering operations for 1942, has been presented to stockholders in advance of the annual meeting to be held in Wilmington, Del., on April 21, 1943. Consolidated net income of \$10,361,210 (\$3.14 per share) for 1942, after all taxes and reserve appropriations, fell \$557,610 below the 1941 earning of \$10,918,820 (\$3.31 per share). Although the total gross income (carrier revenue and manufacturing sales combined) increased 77% to an aggregate of \$312,000,000 and established a new high record in the history of the Pullman group of companies, tax requirements absorbed \$39,553,496 of the \$49,914,706 of pre-tax net income and thus precluded realization of profits commensurate with the unprecedented level of business activity of these companies in 1942. This tax bill was equal to nearly \$12 per share of stock—an increase of \$8.65 per share over 1941.

The war-generated tax burden and reserve appropriations restricted net income to 3.3¢ on each dollar of gross revenue in 1942 as compared with 6.2¢ in 1941, 8.9¢ in 1937, and 9.4¢ in 1930. The sharply increased tax rates prescribed in the Revenue Act of 1942 are effectively siphoning off wartime profits as intended, and forcing profit-margins far below those realized in recent years of much less business activity under peacetime conditions.

CONSOLIDATED INCOME ACCOUNT FOR YEARS ENDED DECEMBER 31, 1942 AND 1941

INCOME:	1942	1941
	(Cents Omitted)	
FROM SLEEPING AND PARLOR CAR BUSINESS —		
Gross operating revenues	\$113,292,473	\$ 70,174,056
Less: Contract revenue payments to Railroads	13,569,687	3,133,468
	\$ 99,722,785	\$ 67,040,587
Operating expenses	\$ 69,327,548*	\$ 53,925,974
Provision for depreciation	10,872,306	10,489,970
Provision for Federal taxes on income (Allocated portion—See Note)	10,535,656	891,693
	\$ 90,735,511	\$ 65,307,638
Appropriation to reserve for post-war re-adaptation of Pullman equipment	2,500,000	—
	\$ 93,235,511	\$ 65,307,638
Net Carrier Earning	\$ 6,487,273	\$ 1,732,949
FROM MANUFACTURING BUSINESS —		
Net sales and operating revenues	\$198,533,395	\$105,428,055
Less:		
Cost of goods sold and operating expenses	\$165,620,912	\$ 87,311,017
Provision for depreciation	2,090,231	2,341,184
Selling and administrative expenses	2,310,643	2,557,419
Loss on Seaboard receivership settlement	409,796	—
Loss on manufacturing plants sold or scrapped	342,181	—
Loss on foreign manufacturing subsidiary	536,003	—
Provision for Federal taxes on income (Allocated portion—See Note)	21,382,610	3,960,585
	\$192,692,380	\$ 96,170,207
Appropriation to reserve for manufacturing contingencies	2,000,000	—
	\$194,692,380	\$ 96,170,207
Net Manufacturing Profit	\$ 3,841,015	\$ 9,257,848
FROM INVESTMENT OPERATIONS —		
Income from securities and miscellaneous items	\$ 662,965	\$ 720,460
Profit on land and securities sold	4,161	32,703
	\$ 667,126	\$ 753,163
Less: Miscellaneous income deductions	\$ 88,572	\$ 98,302
Administrative expenses of Pullman Inc.	346,383	410,643
Provision for Federal taxes on income (Allocated portion—See Note)	199,248	316,193
	\$ 634,204	\$ 825,140
Net Investment Earning or Deficit	\$ 32,922	\$ 71,976**
	\$ 10,361,210	\$ 10,918,820
FROM FEDERAL TAX REFUND —		
Claim for post-war 10% refund on 1942 Excess Profits Tax	\$2,181,288	—
Less: Appropriation to reserves for post-war re-adaptation of manufacturing plants and Pullman equipment	2,181,288	—
	—	—
CONSOLIDATED NET INCOME, CARRIED TO SURPLUS	\$ 10,361,210	\$ 10,918,820

NOTE: Total provision for Federal taxes on income on all corporations whose earnings are consolidated in this account, was \$32,117,514 (including provision of \$21,812,886 for excess profits tax) in 1942 and \$5,168,472 in 1941 when no excess profits tax accrued. These amounts have been allocated among the three divisions of the Consolidated Income Account. The amount allocated to income "From Investment Operations" for the year 1941 embraces the tax imposed on inter-company dividends received by Pullman Incorporated in that year.

* In accordance with ICC accounting instruction the amount of the reserve for deferred maintenance (\$2,743,910) has been included in operating expenses.

** Figure in *italics* denotes deficit.



The following information is abstracted from the full report presented to stockholders:

Sleeping and Parlor Car Business

Pullman traffic, in terms of passenger miles, broke all records in 1942 and surpassed by a wide margin the previous record of 1926. Considering the fact that fewer cars were available, this is an outstanding performance, the utilization factor being reflected in a new high average loading, 18 passengers per car, and the highest average number of miles run per car per day, 461 miles, in the company's history.

Expansion in troop transfers and other war-generated government travel accounted for more than three-fourths of the 1942 increase in passenger miles and more than two-thirds of the gain in gross revenue, but due to a low rate it contributed less than four-tenths of the total gross revenue from cars in 1942.

Movement of troops rose rapidly during 1942, with the result that at the year-end it was approximately equal to the volume of civilian travel. The transportation in Pullman cars of 8 million troops nearly 9 billion passenger miles plus an additional 10 billion passenger miles of other travel affords some indication of the task performed by Pullman in 1942. Pullman was called upon to handle approximately two-thirds of the total organized troop movements in 1942 and was able to do so because of the availability of its highly mobile fleet of more than 7,000 cars.

In 1942, Railroad contract users of Pullman service received out of Pullman revenue, contract payments amounting to approximately \$13,600,000 compared with \$1,100,000 in 1941 and \$9,463,000 in the previous record year of 1926.

Sleeping Car Facilities

Several trains of Pullman cars have been sold to the government and converted, in Pullman shops, into special-type units for hospital service and additional trains for that use are now being prepared in Pullman shops. Pullman cars that were in sound physical condition, but of types not adaptable to use in wartime Pullman services, have been sold to the Railroads for conversion into types of equipment that would be of use in the emergency. Aside from a few units of private-car type and some lounge and observation cars of Pullman ownership that have been removed from streamliners for the duration, there are today no Pullman cars that are not in most intensive operation in Pullman service.

Numerous parlor and sleeping cars have been converted into 3-tier troop sleepers having an average capacity of 43 passengers and these have yielded a load factor of better than 80%, a new high with any class of Pullman cars, with an average load of 35 passengers. These special-type troop cars will not be usable after the war and the capitalized expenditures for original conversion are being amortized on the prescribed five-year basis.

Manufacturing Business

Two-thirds of the year's output of the manufacturing division "went to war" and in 1943 an even larger proportion is scheduled for the same destination. However, there is ample productive capacity in the freight car plants to build new freight cars that the Railroads may want.

Manufacture of armament constituted the major element of the manufacturing business in 1942 and, at the beginning of 1943, armament orders on hand accounted for over 95% of all orders on the books.

Considerable government-financed additions were made in 1942 to enlarge the floor area and the facilities at the aircraft plant and for shipbuilding ways and supplemental fabricating capacity at one of the passenger car shops for the building of vessels for the Navy. A mass production system was devised to achieve the utmost efficiency in the production of the vessels.

Research and New Developments

Technical research and development work are proceeding in both major divisions insofar as the present manpower and material situation will permit, with particular emphasis on improvement in design and manufacturing technique for application to cars to be constructed in the post-war period. Engineering studies are constantly under way in connection with new materials that are

being developed, particularly the alloys of steel, aluminum and magnesium. A new disc or rotor-type brake, in the design of which Pullman has collaborated, has now been in continuous trans-continental service on passenger equipment since August, 1942, and has proved highly satisfactory from a functional standpoint, with not a single failure in service.

Numerous patents on products and processes have been developed or acquired and it is hoped that out of all these activities some new lines of business may be developed that can be successfully conducted under the unrestricted market conditions that it is hoped will return after the war.

THE PULLMAN COMPANY

TRAFFIC AND OPERATING STATISTICS

COMPARATIVE STATEMENT FOR YEARS ENDED DECEMBER 31

ITEM	1938	1939	1940	1941	1942
CARS OWNED....	7,578	7,052	6,901	7,048	7,121
CARS OPERATED.	5,124	5,100	4,990	5,303	6,368
CAR MILES	818,481,116	825,745,133	820,386,700	878,057,274	1,071,254,181
REVENUE PASSENGERS:					
Berth.....	11,338,471	11,549,947	11,077,546	13,166,554	21,008,309
Seat.....	4,201,378	4,105,188	3,687,770	3,744,167	5,054,240
Total.....	15,539,849	15,655,135	14,765,316	16,910,721	26,062,549
REVENUE PASSENGER MILES.....	8,269,882,057	8,485,399,123	8,213,878,992	10,070,406,876	19,071,589,061
OPERATING REVENUE*	\$ 58,924,968	\$ 60,664,266	\$ 60,143,649	\$ 67,040,587	\$ 99,722,785
Average per Car Operated...	\$ 11,499.80	\$ 11,894.95	\$ 12,052.84	\$ 12,642.01	\$ 15,659.99
EXPENSES**	\$ 57,558,097	\$ 58,573,975	\$ 57,899,790	\$ 65,307,638	\$ 93,235,511
Average per Car Operated...	\$ 11,233.04	\$ 11,485.09	\$ 11,603.16	\$ 12,315.23	\$ 14,641.25
NET CARRIER EARNING†..	\$ 1,366,871	\$ 2,090,291	\$ 2,243,859	\$ 1,732,949	\$ 6,487,273
TRAFFIC AVERAGES:					
Average Operating Revenue per Passenger..	\$ 3.79	\$ 3.88	\$ 4.07	\$ 3.96	\$ 3.83
Average Net Carrier Earning per Passenger..	\$ 0.09	\$ 0.13	\$ 0.15	\$ 0.10	\$ 0.25
Average Net Carrier Earning per Car per Day	\$ 0.73	\$ 1.12	\$ 1.23	\$ 0.90	\$ 2.79
Average Mileage per Car Operated.....	159,722	161,914	164,396	165,577	168,225
Average Journey per Passenger (Miles)....	532	542	556	596	732
Average Miles per Car per Day	438	444	449	454	461
Average Loading per Car (Passengers).....	10.01	10.28	10.01	11.47	17.80

* From all sources after deducting contract revenue payments to Railroads.

** Including allocated portion of Federal taxes on income.

*** After appropriation of \$2,500,000 to reserve for post-war re-adaptation of Pullman equipment.

† After provision for Federal taxes on income.



Canadian Pacific Railway Company

SIXTY-SECOND ANNUAL REPORT

OF THE

DIRECTORS OF CANADIAN PACIFIC RAILWAY COMPANY

YEAR ENDED DECEMBER 31, 1942

To the Shareholders:

The accounts of the Company for the year ended December 31, 1942, show the following results:—

Income Account

Gross Earnings	\$256,864,091
Working Expenses (including taxes).....	208,676,402
Net Earnings	\$48,187,689
Other Income	15,861,034
	\$64,048,723
Fixed Charges	\$22,955,503
Interest on bonds of Minneapolis, St. Paul & Sault Ste. Marie Railway Company, guaranteed as to interest by your Company.....	738,953
	23,694,456
Net Income	\$40,354,267
Dividends on Preference Stock:	
2% paid August 1, 1942—\$564,070.....	\$2,521,391
2% payable February 1, 1943—\$564,070....	2,521,391
	5,042,782
Balance transferred to Profit and Loss Account.....	\$35,311,485

Profit and Loss Account

Profit and Loss Balance December 31, 1941.....	\$170,385,936
Balance of Income Account for the year ended December 31, 1942	35,311,485
	\$205,697,421

DEDUCT:

Loss on lines abandoned and on property retired and not replaced.....	\$3,576,565
Exchange adjustment in respect of sterling proceeds from steamship sales and insurance recoveries	846,871
Miscellaneous—Net Debit	23,502
	4,446,938

Profit and Loss Balance December 31, 1942, as per Balance Sheet	\$201,250,483
-----------------------------------------------------------------------	---------------

Net Income for the year amounted to \$40,354,267, being \$5,992,835 greater than in 1941.

Railway Earnings and Expenses

The comparative results of railway operations were as follows:

	1942	1941	Increase or Decrease
Gross Earnings	\$256,864,091	\$221,446,053	\$35,418,038
Working Expenses (including taxes)	208,676,402	175,488,517	33,187,885
Net Earnings	\$48,187,689	\$45,957,536	\$2,230,153
Expense ratios:			
Including taxes	81.24%	79.25%	1.99
Excluding taxes	71.54%	71.65%	.11

GROSS EARNINGS increased by \$35,418,038, or 16.0%, and were greater than in any previous year in the history of your Company, exceeding those of 1928 by \$14,885,630, or 6.2%.

FREIGHT EARNINGS increased by \$18,496,666, or 10.4%. Increases were reported in all commodities except grain. The movement of manufactured goods increased principally as a result of the greatly expanded output of munitions of war. Developments such as the Alaska Highway, the enlarged shipbuilding programme, and the construction of naval depots and airfields at various points also contributed to the growth of freight traffic. The curtailment of ocean and coastal transport owing to the shortage of shipping increased the rail movement of such staples as coal and oil, and restrictions on highway transport contributed to an increase in short haul traffic.

Earnings from grain and grain products decreased \$6,041,016, or 15.5%, in spite of the fact that the largest Prairie wheat crop on record—565 million bushels—was harvested this year. The

lack of adequate shipping, as well as the closing of important export markets, created serious storage problems at the Lakehead and at other terminal points, thus restricting the movement of grain. Grain handlings on your Company's lines dropped to 18 million bushels as compared with 215 million in 1941 and were somewhat less than the average of 183 million bushels for the fifteen years, 1927-41. At the end of the year, only 10% of the wheat available for movement in the Prairie Provinces had been transported, and there remained to be shipped approximately 57 million bushels, or 80% more than at the close of 1941.

Revenue freight traffic totalled 22,600 million ton miles, 22 million greater than in 1941 and 4,177 million greater than in 1928. The average revenue per ton mile was 0.86 cents as compared with 0.79 cents in 1941 and 0.96 cents in 1928.

PASSENGER EARNINGS increased by \$14,041,105, or 55.5%, and were the highest since 1921. Travel, with the exception of long distance holiday traffic, showed heavy increases over practically all sections of your Company's lines. Civilian travel was exceptionally heavy in spite of the elimination of many classes of reduced fares. The growth in passenger traffic resulted partly from the restriction of automobile travel through the rationing of gasoline and the shortage of rubber for tires. The average passenger journey was 156 miles, compared with 144 miles in 1941, the longest previously recorded. The heavy movement of the armed forces, both on duty and on leave, and the low rates applicable to such traffic contributed to the reduction in the average revenue per passenger mile which was 1.87 cents, the lowest since 1910.

OTHER EARNINGS increased by \$2,880,267, or 15.4%. Substantial increases occurred in revenues from news services and from dining, sleeping and parlor cars. Net payments for hire of equipment increased \$930,104 as a result of a greater movement of commodities in tank cars, gondolas and covered hopper cars owned by private operators and by United States railways.

WORKING EXPENSES increased by \$33,187,885, or 18.9%. Exclusive of taxes the increase was \$25,100,063, or 70.9% of the increase in gross earnings. The wartime cost-of-living bonus paid to employees amounted to approximately \$12,000,000, an increase of about \$7,500,000 over the previous year. The bonus rate of \$3.65 per week which went into effect November 16, 1941, was increased under Order-in-Council P. C. 5963 to \$4.25 per week effective August 15, 1942. In spite of the increased wage and material costs the ratio of working expenses (excluding taxes) to gross earnings was reduced from 71.65% in 1941 to 71.54% in 1942.

MAINTENANCE OF WAY AND STRUCTURES EXPENSES increased by \$8,461,192. The continuing heavy traffic brought about a considerable rise in current maintenance requirements, but shortage of labour and materials compelled the restriction of the work undertaken to those repairs and replacements essential for safe operation. During the year 1,751,285 treated and 1,207,188 untreated ties were placed in track and 300 single track miles of new rail were laid. Tie plates to the number of 2,826,930 and rail anchors numbering 1,260,140 were also installed. Examination of rails by Sperry detector car for invisible defects was continued. It extended over 8,161 miles of track from which all rails indicated as defective were removed. Provision of \$3,750,000 for additional maintenance expenditures which have been postponed until after the war, was included in the expenses for the year. Accrual of depreciation on bridges, buildings and other structures was put into effect on July 1. For the half-year, this amounted to \$2,735,370 and was credited to Depreciation Reserve—Road.

MAINTENANCE OF EQUIPMENT EXPENSES increased by \$3,838,701. Locomotive repairs involved an expenditure of \$11,074,361 and



included the shopping of 821 engines for heavy repairs. Maintenance of passenger train cars cost \$6,505,893 and included the general overhauling of 1,272 units. To meet special requirements resulting from wartime conditions, 10 compartment observation sleeping cars were converted to coaches, 11 lounge and sleeping cars were air-conditioned and converted to other classes of dining, parlor and sleeping car equipment, and 7 through baggage cars originally designed for handling silk were converted to regular baggage cars. Electric lights were installed in 35 coaches and colonist cars formerly equipped with gas lighting. The maintenance of freight train cars cost \$10,685,545 and included heavy repairs to 26,272 cars. Arch bar trucks were replaced by cast steel truck side frames on 3,519 cars to make them available for interchange traffic. At the end of the year, 93.2% of locomotives and 97.7% of freight cars were in serviceable condition, as compared with 92.3% and 98.0%, respectively, in 1941. Charges for depreciation of rolling stock amounted to \$12,777,310, as compared with \$12,700,602 in 1941. Accrual of depreciation on shop and power plant machinery was put into effect on July 1. This amounted to \$882,042 and was credited to Depreciation Reserve—Road.

TRANSPORTATION EXPENSES increased by \$10,653,857. The ratio to gross earnings was reduced to 32.27%, the lowest on record. There was a substantial improvement in passenger service performance. The average number of passengers per train mile was 110, an increase of 47.9%, while the average train consisted of 8.4 cars, an increase of 7.7%. Another favourable factor was the heavy loading and better utilization of freight cars. In spite of a substantial decrease in the movement of grain, a commodity which loads heavily, the average freight car load showed a slight improvement, being 31.93 tons compared with 31.86 in 1941. Although loaded car miles increased 0.9%, empty car miles were reduced by 13.5%. As against these favourable factors, the movement of trains on many sections of the line was rendered more difficult owing to the increased density of traffic. This led to a slightly less satisfactory freight train performance in certain respects as indicated by the following indices:

	1942	1941
Freight train load—gross tons.....	1,711	1,759
Freight train fuel consumption—pounds per 1,000 gross ton miles.....	101	98
Freight train speed—miles per hour.....	16.7	17.2
Gross ton miles per freight train hour.....	28,514	30,312

OTHER WORKING EXPENSES increased by \$10,234,135, of which \$8,087,822 was attributable to heavier taxes. Railway tax accruals, including \$21,300,000 for Dominion Income and Excess Profits taxes, were \$24,920,980. Expenses of dining and buffet service were higher by \$828,785 and news service by \$473,956.

Other Income

Other income amounted to \$15,861,034, an increase of \$2,478,975, or 18.5%.

Dividend income decreased by \$1,671. Dividends of \$2.50 per share—the same rate as in 1941—were received from The Consolidated Mining and Smelting Company of Canada, Limited.

Net income from interest, exchange, separately operated properties and miscellaneous sources increased by \$2,523,799. A marked improvement took place in the operating results of the Northern Alberta Railways Company, which enjoyed a very large volume of traffic from special war projects and related activities in Northwestern Canada. As a result of additions to sinking and other reserve funds there was an increase in the income from this source, and the amount of your Company's management fees under its contracts with the Government was larger owing to the growth of production of munitions in the shops.

Net earnings of ocean and coastal steamships were \$2,888,278, an increase of \$99,981. All units of your ocean and coastal fleets were actively employed throughout the year.

Net earnings of hotel, communication and miscellaneous properties decreased by \$143,134. The reduction in hotel earnings amounted to \$354,228. Your hotels at Yarmouth, Lake Louise and Emerald Lake and four lodges were not in operation during the year. Holiday tourist business at your other hotels and camps declined sharply. The net earnings of the Communications Department showed a gain of \$177,898, owing to heavier telegraph and cable traffic and increased receipts from leased wires. Net earnings of miscellaneous properties increased \$33,966. Depreciation accounting was extended from July 1 to in-

clude the depreciable proportion of communication and miscellaneous properties.

Fixed Charges and Guaranteed Interest

Fixed charges decreased by \$1,273,195. The principal reductions resulted from the retirement without refunding of the Convertible Ten Year 6% Collateral Trust Bonds, of the Twenty Year 4½% Sinking Fund Secured Note Certificates on which interest was accrued to June 15, 1941, and of various equipment obligations.

The amount charged to income on account of guaranteed interest on Soo Line bonds was \$738,953, compared with \$795,564 in the previous year.

Dividends

Dividends amounting to \$5,042,782, being at the rate of 4% on the non-cumulative Preference Stock, were declared out of the Net Income for the year.

It is the decision of your Directors that no dividend on Ordinary Stock should be declared from the earnings of the year 1942.

During the past three years, the Funded Debt of your Company has been substantially reduced, but fixed charges are still higher than they were when dividends were last paid. It is felt that these should be brought down to something like the former level before distribution to shareholders is renewed.

Your Directors have in mind that after the war there will probably be a period of readjustment with unpredictable reactions on the earnings and expenses of transportation companies. After careful consideration of all factors, they have come to the conclusion that it is in the best interests of the shareholders to conserve your Company's resources, so that it may face the problems and difficulties of the post-war period in a strong financial position.

Profit and Loss Account

Net charges to profit and loss amounted to \$4,446,938, as compared with \$2,978,009 for 1941. One of the principal items was the retirement of track and other facilities at Transcona Yard, near Winnipeg, which have been rendered unnecessary by present operating methods and traffic conditions. A branch line from Lardeau to Gerrard in the Province of British Columbia, 33.1 miles in length, was abandoned during the year and the investment written off. Various miscellaneous properties and portions of facilities no longer required for operation were also written off.

The profit and loss balance at the close of the year was higher by \$30,864,547 than at the end of 1941.

Land Accounts

During the year 94,233 acres of agricultural lands were sold for \$488,239, an average price of \$5.18 per acre. Included in this total were 146 acres of irrigated land, sold at an average price of \$45.32 per acre.

Cash received on land account totalled 2,680,637, including \$517,512 for rents and royalties from coal lands and gas and petroleum rights. Disbursements for land and irrigation expenses, including taxes, were \$1,519,889, leaving net cash receipts of \$1,160,748. This was a decrease of \$398,180 from the previous year.

In pursuance of the policy of rendering assistance to farmers in the Western Provinces who have suffered through adverse conditions, your Company continued in the current crop year the same rebates of interest and other concessions as were granted in 1941. The total amount of assistance to holders of farm contracts since 1932 has been \$19,428,340.

Balance Sheet

The principal changes during the year in the General Balance Sheet accounts, not dealt with elsewhere, are outlined below.

A new account was established, entitled Depreciation Reserve—Road. In addition to the current transactions of the year there was transferred to this account an amount of \$74,728,521, representing appropriations made from surplus during the years 1904 to 1913 which had been applied in reduction of Property Investment.

Net discount on early issues of stock, amounting to \$33,985,694, which had been charged to Property Investment and other ac-



counts, was transferred and applied against Premium on Capital and Debenture Stock. This account now includes for the first time the entire premium and discount on your Company's stock issues, comprising net premium of \$74,873,749 on the Ordinary Stock, and net discounts of \$15,756,129 on the Preference Stock and \$24,551,668 on the Perpetual 4% Consolidated Debenture Stock.

Investments have been set aside in a Maintenance Fund equal in amount to the Maintenance Reserves, which at the close of the year amounted to \$7,250,000.

Two of your Company's ocean steamships were purchased during the year by the Ministry of War Transport of the United Kingdom. The proceeds of these sales and insurance recovered on other steamships were added to the Steamship Replacement Fund. Further amounts have been placed to the credit of your Company by the Ministry in a special account which may be drawn upon under conditions set forth by the Minister as replacements are effected.

The excess of Current Assets over Current Liabilities was \$59,583,344, an increase of \$1,673,921. Miscellaneous Accounts Receivable were \$17,841,429, of which \$8,816,748 was on Dominion Government account. Other Current Liabilities were \$18,131,343, of which \$11,563,368 was on account of accrued taxes.

Finance

On March 15, 6% Collateral Trust Bonds to the amount of \$11,124,500 matured. By the end of the year \$10,389,500 of these bonds had been redeemed, and the amount owing with respect to the remaining \$735,000 is included in the Balance Sheet under Other Current Liabilities. The following securities were purchased and cancelled—3% Collateral Trust Bonds due 1945 to the amount of \$2,500,000, 5% Collateral Trust Gold Bonds due 1954 to the amount of \$2,000,000 and 4½% Collateral Trust Gold Bonds due 1946 to the amount of \$1,000,000. Consolidated Debenture Stock to the amount of \$20,879,400, pledged as collateral to these bonds, was released and cancelled.

Equipment obligations to the amount of \$3,918,202 matured and were paid, and Consolidated Debenture Stock to the amount of \$268,000 pledged under Series "D" was released and cancelled. The sum of \$2,753,310 was deposited with the Trustee of the Equipment Trust maturing July 1, 1944, and under authority of the Trust Agreement the Trustee purchased and cancelled \$896,000 of the Equipment Trust Certificates. On December 31, the balance of \$8,624,624 due to the Dominion Government on the Equipment Lease dated June 6, 1940, was prepaid.

On February 1, 4% Serial Secured Notes to the amount of \$638,285 were redeemed, and Consolidated Debenture Stock to the amount of \$1,523,500, pledged as collateral, was released and cancelled. On December 15, \$3,281,860 of these notes were refunded by the issue of notes to the amount of \$3,280,000 at the reduced rate of 3%, such notes being secured in the same manner and maturing on the same dates as the notes retired. In connection with this refunding Consolidated Debenture Stock to the value of \$2,231,500 was released and cancelled. Owing to the enhanced market value of Consolidated Debenture Stock, it was possible at the same time to withdraw and cancel \$2,755,000 of such stock from the collateral held against the remainder of the 4% Notes.

On December 1, 3% Serial Secured Notes due December 1, 1944, to the amount of \$2,000,000 were prepaid. On such prepayment Consolidated Debenture Stock to the amount of \$1,200,000, pledged as collateral, was released and cancelled, and 52,000 shares of capital stock of The Consolidated Mining and Smelting Company of Canada, Limited, were released.

During the year \$603,500 of matured but unredeemed 4½% Sinking Fund Note Certificates were paid, and \$37,000 of matured but unredeemed Collateral Trust Bonds were also paid. Consolidated Debenture Stock to the amount of \$44,400, pledged as collateral to the bonds, was released and cancelled.

On February 16, the First Mortgage Debenture Stock of the Edmonton, Dunvegan and British Columbia Railway Company, aggregating \$1,438,356, matured and was paid by the Northern Alberta Railways Company. To place this jointly controlled subsidiary company in funds to meet this maturity, with respect to which the Canadian National Railway Company and your Company had jointly and equally agreed to indemnify the Government of Alberta against liability under its guarantee of principal, the subsidiary issued and sold at par to the two parent

companies \$6,430,000 of its bonds, your Company's proportion of such issue being \$3,215,000.

The financial transactions referred to above, together with the payment to the Dominion Government on January 2, 1942, of \$980,940, referred to in the Annual Report for 1941, resulted in the retirement without refunding of \$35,447,221 of bonds, notes and other obligations, the discharge of a contingent liability of \$3,500,000, and in a reduction of \$28,901,800 in the amount of Consolidated Debenture Stock pledged as collateral.

Pensions

Working expenses were charged with \$4,076,705, representing your Company's proportion of pension allowances, its contributions to the Pension Trust Fund and the levies in respect of employees who come under the United States Railroad Retirement Act. In view of the higher level of employment and increased rates of pay, as well as the declining trend of return on investments, your Directors authorized an increase from \$400,000 to \$700,000 in the special contributions made annually to the Pension Trust Fund to assist in meeting the anticipated peak period of cost under the pension plan.

The number of employees pensioned during the year was 649. After allowing for deductions owing to death and discontinuance from other causes, the total number on the pension payroll at the end of the year was greater by 356 than at the end of 1941.

Distribution by ages was as follows:

Under 60 years of age.....	278
From 60 to 64 years of age inclusive.....	587
From 65 to 70 years of age inclusive.....	2,227
Over 70 years of age	1,710
	4,802

Canadian Pacific Air Lines, Limited

During the year a number of steps were taken, designed to integrate your air activities into a co-ordinated system operated by Canadian Pacific Air Lines, Limited, a wholly owned subsidiary of your Company. Agreements were concluded for the purchase and transfer by your Company to that subsidiary of the entire assets of Arrow Airways Limited, Canadian Airways Limited, Dominion Skyways Limited, Ginger Coote Airways Limited, Mackenzie Air Service Limited, Prairie Airways Limited, Starratt Airways and Transportation Limited, Wings Limited and Yukon Southern Air Transport Limited. Canadian Pacific Air Lines, Limited, has also acquired direct control of your five air observer school subsidiaries, as well as the controlling interest in Quebec Airways Limited with its two air school subsidiaries. At the end of the year your Company had expended \$4,725,917 in the acquisition of its air line undertakings, and had received \$4,000,000 Capital Stock and \$725,917 notes of Canadian Pacific Air Lines, Limited.

Further progress was made in the standardization of equipment and operating methods, and a unified administrative organization was established with offices in Montreal and Edmonton. Additional aircraft units of modern design are being obtained through the Canadian and United States Governments to assist in handling war traffic, which is very heavy as a result of a number of large projects in the territories served by the air lines. It is estimated that over 90% of all business handled is directly connected with the war effort. Ground, radio and hangar facilities are being expanded. At the end of the year employees of Canadian Pacific Air Lines, Limited, and its subsidiaries, including the overhaul plants and training schools operated in connection with the British Commonwealth Air Training Plan, totalled approximately 7,000.

Minneapolis, St. Paul & Sault Ste. Marie Railway Company

The gross earnings of this Company were \$22,630,842, an increase of \$3,352,525, and the net earnings were \$3,984,434, an increase of \$1,670,865. The grain crop in the area tributary to its lines amounted to 57 million bushels, the largest since 1928 and 7 million bushels greater than in 1941. Working expenses included \$545,696 for special amortization of equipment, an increase of \$148,875.

A plan of reorganization of the Soo Line was approved by the Interstate Commerce Commission on June 17, and by the District Court at Minneapolis on November 13. The plan is being submitted by the Interstate Commerce Commission to a vote of the security holders, who have until April 12, 1943, to accept or reject it.



The action in the Circuit Court of Cook County, Illinois, in connection with your Company's guarantee of interest on the First Consolidated Bonds, which has been referred to in previous Annual Reports, remains in abeyance in the meantime.

The Duluth, South Shore and Atlantic Railway Company

The gross earnings of this Company were \$4,143,876, as compared with \$3,316,914 in 1941, and the net earnings were \$946,969, as compared with \$627,466.

The negotiations with the representatives of holders of the First Mortgage Bonds, which were reopened during the year, did not result in a settlement of the questions underlying the allocation of new securities which are delaying the filing of a plan of reorganization. It has therefore been necessary to proceed with the litigation begun in 1940 and referred to in the Annual Report for that year. An agreed statement of facts and briefs have been filed, and oral arguments have been presented.

Rates and Services

The Dominion Transport Controller made a number of orders during the year which were designed to curtail non-essential traffic and expedite freight and passenger movements. These orders included provision for the cancellation or modification of a number of special reduced fare arrangements, such as coach excursion fares, special Sunday fares, certain party fares and fares for exhibitions, conventions and sports events; for the prescription of minimum weights for refrigerator carloads; and for the imposition of penalties, in addition to the ordinary demurrage charges, to prevent the undue detention of refrigerator equipment.

During the year the Canadian Passenger Association, of which your Company is a member, established throughout Canada lim-

itations on advance reservation of sleeping and parlor car accommodation to reduce waste of space through unnecessary cancellations.

An increase from 10% to 15% in the Dominion excise taxes on passenger tickets and sleeping and parlor car fares was put into effect on June 29. Increased taxes on passenger fares and a new tax on freight tolls were imposed on all railway lines in the United States in the latter part of the year.

Your Company received from the builders 35 Pacific type locomotives, for main line passenger and fast freight service, 25 air-conditioned first class passenger coaches of light weight steel construction, 150 automobile type box cars, 100 refrigerator cars equipped with overhead brine tanks, 150 70-ton ore cars, and 30 cabooses. Still to be delivered at the end of the year were 7 Pacific type locomotives, 20 heavy freight locomotives of the Mikado type, 5 Diesel switching locomotives of 1,000 horsepower capacity, 500 40-ton box cars of steel frame construction sheathed with plywood, and 250 50-ton steel frame box cars. Reference has already been made to certain modernization and betterment of your Company's passenger and freight equipment carried out during the year.

Wartime Activities

Transportation requirements were even greater than in the previous year. The continued expansion of industrial activity occasioned by the war and the growth of the armed forces, gave rise to a large increase in traffic. Your Company has provided equipment for the proper care and handling of sick and wounded members of the armed forces. Large numbers of prisoners of war and civilian internees were transported.

Operating problems were accentuated by the high rate of labour turnover, which was more than twice as great as in normal

Canadian Pacific Railway Company

General Balance Sheet, December 31, 1942

Assets		Liabilities	
PROPERTY INVESTMENT:		CAPITAL STOCK:	
Railway, Rolling Stock, Inland Steamships, Hotel, Communication and Miscellaneous Properties	\$901,532,307	Ordinary Stock	\$335,000,000
Improvements on Leased Property	98,840,778	Preference Stock—4% Non-cumulative	137,256,921
Ocean and Coastal Steamships	52,885,105		\$472,256,921
Stocks, Bonds and Other Securities of Leased, Controlled and Jointly Controlled Railway Companies and Wholly Owned Companies	201,482,592	PERPETUAL 4% CONSOLIDATED DEBENTURE STOCK	\$442,269,429
	\$1,254,740,782	LESS: Pledged as collateral to bonds, notes and equipment obligations	146,831,200
			295,438,229
OTHER INVESTMENTS:		FUNDED DEBT	\$157,956,154
Miscellaneous Investments—Cost	\$26,296,858	LESS: Securities and cash deposited with Trustee of 5% Equipment Trust	14,937,912
Advances to Controlled and Other Companies	27,558,577		143,018,242
Mortgages Collectible and Advances to Settlers	3,072,202	CURRENT LIABILITIES:	
Deferred Payments on Lands and Townsites	28,930,934	Pay Rolls	\$4,788,874
Unsold Lands and Other Properties	21,874,089	Audited Vouchers	10,433,552
Maintenance Fund	7,250,000	Net Traffic Balances	3,462,586
Insurance Fund	9,707,129	Miscellaneous Accounts Payable	4,127,214
Steamship Replacement Fund	36,081,515	Accrued Fixed Charges and Guaranteed Interest	1,959,332
	160,771,304	Unmatured Dividend Declared	2,521,391
CURRENT ASSETS:		Other Current Liabilities	18,131,343
Material and Supplies	\$28,017,845		45,424,292
Agents' and Conductors' Balances	13,766,548	DEFERRED LIABILITIES:	
Miscellaneous Accounts Receivable	17,841,429	Dominion Government Unemployment Relief	\$2,447,223
Cash	45,381,814	Miscellaneous	3,614,461
	105,007,636		6,061,684
UNADJUSTED DEBITS:		RESERVES AND UNADJUSTED CREDITS:	
Insurance Prepaid	\$222,590	Maintenance Reserves	\$7,250,000
Unamortized Discount on Bonds	1,615,344	Depreciation Reserves—Road	77,350,679
Other Unadjusted Debits	1,137,445	—Rolling Stock	84,255,149
	2,975,379	—Steamship	46,497,359
	\$1,523,495,101	—Hotel and Other	10,281,881
		Investment Reserves	17,498,138
TO THE SHAREHOLDERS,		Insurance Reserve	9,707,129
CANADIAN PACIFIC RAILWAY COMPANY:		Contingent Reserves	5,105,407
We have examined the Books and Records of the Canadian Pacific Railway Company for the year ending December 31, 1942, and having compared the above Balance Sheet and related schedules therewith, we certify that in our opinion it is properly drawn up so as to show the true financial position of the Company at that date, and that the Income and Profit & Loss Accounts correctly set forth the result of the year's operations.		Unadjusted Credits	4,718,141
The records of the securities owned by the Company at December 31, 1942, have been verified by an examination of those securities in the custody of its Treasurer and by certificates received from such depositaries as are holding securities for safe custody for the Company.			262,663,883
PRICE, WATERHOUSE & CO.,		PREMIUM ON CAPITAL AND DEBENTURE STOCK	34,565,952
Chartered Accountants.		LAND SURPLUS	62,815,415
Montreal, March 5, 1943.		PROFIT AND LOSS BALANCE	201,250,483
			\$1,523,495,101

E. A. LESLIE, Comptroller.

[Advertisement]



years. The burden of supervision on officers and senior employees was greatly increased as a result of the large number of new and inexperienced employees which it was necessary to hire.

The continued expansion of war production in Canada necessitated the extension of many railway facilities. During the year 51 miles of industrial trackage was completed to serve 105 new plants and undertakings, the major portion of which were Government-financed war projects.

Your Company's ocean steamships and part of its coastal fleet remained throughout the year in the service of the Ministry of War Transport of the United Kingdom.

A feature of wartime activity in Canada during 1942 was the construction of the Alaska Highway in connection with which your Company's railway and air lines were used to a large extent in the movement of men and materials.

Production of Valentine tanks at the Angus Shops in Montreal continued at the scheduled rate during 1942. Representatives of the Russian Government have been loud in their commendation of the quality of these tanks and their effectiveness in the field. The contract for the production of tanks is approaching completion, and under arrangements with the Government the shop facilities released will in part be diverted to the manufacture of marine engines. Replacement parts for Valentine tanks will continue to be produced at the plant.

Full production of naval guns and mountings was attained at the Ogden Shops in Calgary. Special work under other munitions contracts is also being performed in the shops of your Company.

The officers and employees continued to give enthusiastic support to patriotic activities and campaigns during the year. In Montreal alone, more than 2,800 of the staff have enrolled as blood donors. In the three Canadian Victory Loans, your Company and its officers and employees have subscribed a total of \$43,842,500. Of this amount, \$33,639,000 has been taken by your Company and by its Pension Fund and the Pension Fund of the Canadian Pacific Express Company. At the end of the year more than 33,000 officers and employees were purchasers of War Savings Certificates under the payroll deduction plan.

At December 31, the total number of Canadian Pacific employees who were enrolled in the armed services of the United Nations was 14,062.

Capital Expenditures

In anticipation of your confirmation, your Directors authorized capital appropriations for the year 1942 amounting to \$1,562,489 in addition to those approved at the last annual meeting. Included in these appropriations was an amount of \$398,095 for the purchase of five Diesel switching locomotives.

Your approval will also be requested for capital appropriations of \$14,196,440 for the present year. The principal items are as follows:

Replacement and enlargement of structures in permanent form.	\$39,025
Additions and betterments to stations, freight sheds, coaling and watering facilities and engine houses.	1,137,227
Ties, tie plates, rail anchors and miscellaneous roadway betterments.	1,688,301
Replacement of rail in main and branch line tracks with heavier section.	877,998
Installation of automatic signals.	1,236,130
Additional terminal and side track accommodation.	537,066
Additions and betterments to shop machinery.	522,041
New rolling stock.	7,426,100
Additions and betterments to rolling stock.	459,083
Additions and betterments to communications facilities.	183,599
British Columbia Lake and River Service.	33,000

The amount appropriated for automatic signals includes provision for an installation on the main line between Chapleau and Schreiber, Ontario, where an exceptionally heavy volume of traffic is moving under most severe operating conditions. New equipment comprises 20 Pacific type locomotives for passenger and fast freight service, 15 Mikado type locomotives for heavy freight service, 500 gondola cars and 50 cabooses. Should conditions improve so as to make it possible to procure additional materials, your Directors may consider an enlargement of this programme by placing further orders for freight cars.

Agreements

The following agreements made by your Directors will be submitted for your consideration and approval:

1. A lease of the lines of railway and bridges of The Fort

William Terminal Railway and Bridge Company, which the Lessor Company has been by law authorized to construct, whether constructed or to be constructed, including those on and adjacent to Islands Numbers One and Two at the mouth of the Kaministiquia River and spanning that river and McKellar Creek, all in the city of Fort William, for a term of 999 years from July 1, 1943, at an annual rental equal to the interest payable on the bonds which the Lessor Company may at any time or times hereafter issue at the request of your Company, the total of all such bonds unpaid or unredeemed not to exceed at any time the sum of \$50,000 per mile of the Lessor Company's railway, constructed or under contract to be constructed, and to bear interest at a rate not exceeding 5% per annum payable half-yearly.

2. An agreement with the Glengarry and Stormont Railway Company providing for the amendment of the lease dated June 1, 1915, under which the railway of that company is leased to your Company for the term of 99 years. The amendment provides for a revision of the provisions of the lease in regard to the calculation of gross earnings of the Lessor Company upon which the rental is based and for a release of all claims under the original provisions up to and including December 31, 1940. The Royal Trust Company, Trustee under the mortgage securing the bonds of the Lessor Company, and Sun Life Assurance Company of Canada, owner of all of the said bonds, join in the agreement as consenting parties.

Stock Holdings

The holdings of the Capital Stock of the Company at December 31 were as follows:

	ORDINARY		PREFERENCE		TOTAL Percentage of Stock
	No. of Holders	Per- centage of Stock	No. of Holders	Per- centage of Stock	
Canada	25,908	17.75	161	.64	12.68
United Kingdom and other British	18,028	53.64	25,810	96.44	66.32
United States	13,673	22.59	77	.35	16.00
Other Countries	3,504	6.02	563	2.57	5.00
	61,113		26,611		

Changes in Directorate

It is with deep regret that your Directors report the loss by death on June 10 of Mr. W. N. Tilley, K.C., of Toronto, Consulting Counsel of your Company, a member of the Board since 1922 and of the Executive Committee since 1924. He was recognized both here and in Great Britain as one of the leaders of the Canadian Bar. His brilliant qualities as an advocate were combined with unusually sound business judgment, and during his long association with your Company its problems were his major concern.

The vacancies on the Board caused by the death in 1941 of the Rt. Hon. Arthur B. Purvis, P.C., and of Sir Herbert Holt, and that of Mr. Tilley were filled as follows:

Mr. W. M. Neal, Vice-President of the Company, was appointed a Director and member of the Executive Committee.

Mr. S. G. Blaylock and Hon. Charles A. Dunning, P.C., were appointed Directors.

Retiring Directors

The undermentioned Directors will retire from office at the approaching annual meeting. They are eligible for re-election:

MR. S. G. BLAYLOCK
HON. HENRY COCKSHUTT
MAJ.-GEN. FRANK S. MEIGHEN, C.M.G.
MR. ROBERT C. STANLEY

Your Directors desire again to express their pride in and their sense of gratitude for the loyalty and efficiency displayed by your officers and employees. In particular, record should be made of the brave devotion to duty of those who have manned your steamships under conditions which often involved great difficulty and danger. With sincere thanks, they acknowledge the whole-hearted co-operation of the shipping and travelling public in meeting the problems of war transportation, and wish to pay the highest tribute to the vigilance, endurance and valour of the armed forces of the United Nations, through the protection of whom the operations of your Company on land, on sea and in the air have been made possible.

MONTREAL, March 8, 1943.



READING COMPANY

FORTY-FIFTH ANNUAL REPORT FOR THE YEAR ENDED DECEMBER 31, 1942

Philadelphia, Pa., March 23, 1943.

To the Stockholders of Reading Company:

The Board of Directors submits herewith its 45th Annual Report of the operations and affairs of the Company for the year ended December 31, 1942:

	1942	1941	Increase or Decrease	
Average miles of road operated	1,425.04	1,435.37	10.33	7%
Receipts from the transportation of anthracite and bituminous coal, merchandise, passengers, etc.	\$102,683,717	\$79,566,095	\$23,117,622	29%
Cost of operating the railroad and maintaining the property	63,990,872	52,921,507	11,069,365	21%
Net Revenues	\$38,692,845	\$26,644,588	\$12,048,257	45%
Federal, State and other taxes	\$15,040,988	\$9,318,064	\$5,722,924	61%
Payments to other companies in excess of receipts from such companies for hire of equipment and use of joint facilities	1,930,117	1,173,985	756,132	64%
Net Railway Operating Income	\$21,721,740	\$16,152,539	\$5,569,201	34%
Income from investment in securities, property rentals and other items	2,061,453	1,940,922	120,531	6%
Miscellaneous income deductions	796,200	747,997	48,203	6%
Gross Income before deductions for fixed charges	\$22,986,993	\$17,345,464	\$5,641,529	33%
Fixed charges—interest on funded debt, rentals paid for leased railroads, etc.	7,695,993	8,015,260	319,267	4%
Net Income available for dividends and other corporate purposes	\$15,291,000	\$9,330,204	\$5,960,796	64%
Percentage of each dollar of operating revenue consumed by operating expenses	62.32%	66.51%	4.19%	
Rate of return on investment in property used for transportation service	4.81%	3.57%	1.24%	
Times fixed charges earned	2.99	2.16	.83	
Earnings per share of First and Second Preferred Stock	\$10.92	\$6.66	\$4.26	
Earnings per share of Common Stock after First and Second Preferred dividend requirements of \$2.00 per share each	\$8.92	\$4.66	\$4.26	

Italics denote decreases.

The volume of freight traffic handled in 1942 surpassed that of any previous year. Total operating revenues exceeded those of any year since 1926. Revenues for the year from the transportation of general merchandise were the highest in the company's history. Revenues from the transportation of anthracite coal exceeded those of any year since 1931; of bituminous coal, since 1926; and of passengers, since 1928.

The following statistics show a comparison of revenues and volume of traffic in 1942 and 1941:

Item	Revenues 1942	Increase over 1941 Amount	%
Freight:			
Anthracite Coal	\$19,418,496	\$2,314,682	13.5
Bituminous Coal	19,644,254	5,740,118	41.3
Merchandise	51,677,553	10,222,168	24.6
Total Freight	\$90,740,303	\$18,276,968	25.2
Passenger	\$7,291,197	\$3,665,109	101.1
Mail	470,688	52,751	12.6
Express	712,938	317,695	80.4
All Other	3,468,591	805,099	30.2
Grand Total	\$102,683,717	\$23,117,622	29.1

Revenue ton miles of freight carried were 8,804,952,172 (the highest of any year in the Company's history), but the average revenue per ton-mile on that business was only 1.031¢, the lowest of any year since 1937. Passenger miles of 390,201,275 exceeded any year since 1926, while average revenue per passenger mile of 1.869¢ was the highest of any year since 1932.

From each dollar of operating revenues 62.32 cents was required to pay the cost of operating and maintaining the property. This was the lowest operating ratio since 1916, although more was spent in conducting operations than in any year since 1930.

Financial Position, December 31st

	1942	1941	Increase or Decrease
Investments in land, railroad tracks, terminal facilities, shops, locomotives, freight and passenger cars and other fixed property of	\$368,834,222	\$366,986,597	\$1,847,625
Investments in stocks, bonds and notes carried at	73,724,175	72,743,697	980,478
Total	\$442,558,397	\$439,730,294	\$2,828,103
Treasury Notes Tax Series C	9,000,000		9,000,000
Total Investments	\$451,558,397	\$439,730,294	\$11,828,103
Cash	\$11,435,011	\$15,648,741	\$4,213,730
Railroad companies and others owed	6,441,737	3,957,438	2,484,299
Fuel, rails, ties, bridge material and other supplies necessary for keeping road and equipment in good repair	7,416,105	5,933,930	1,482,175
Special deposits, deferred assets and unadjusted debits	2,073,002	1,756,666	316,336
Total assets	\$478,924,252	\$467,027,069	\$11,897,183
Owed for materials, supplies, wages and balances to other railroad companies, and interest and rents accrued but not yet due	\$10,565,839	\$10,230,222	\$335,617
Taxes accrued but not due	14,737,116	9,186,978	5,550,138
Reserve for depreciation of road and equipment	87,039,094	83,887,227	3,151,867
Deferred liabilities and unadjusted credits	1,391,263	1,683,775	292,512
The total of these liabilities, credits and reserves was	\$113,733,312	\$104,988,202	\$8,745,110
After deducting these items from the total assets there remained capital net assets of	\$365,190,940	\$362,038,867	\$3,152,073
The capitalization consisted of the following:			
Funded Debt, including bonds, equipment obligations, etc.	\$116,520,996	\$124,088,077	\$7,567,081
First Preferred Stock	27,991,150	27,991,150	
Second Preferred Stock	41,970,600	41,970,600	
Common Stock	69,989,100	69,989,100	
Making a total capitalization of	\$256,471,846	\$264,038,927	\$7,567,081
After deducting this capitalization from net assets there remained a corporate surplus of	\$108,719,094	\$97,999,940	\$10,719,154

Italics denotes decreases.

Investments in Government Obligations

During the year 1942 Reading Company purchased the following bonds or notes of the United States Government, all of which are held in its treasury:

\$520,000 2% Treasury Bonds of 1949-51
9,000,000 Treasury Notes Tax Series C
\$9,520,000 (Principal Amount)

It also acquired, through investment funds on deposit with trustees of some of its mortgage obligations, \$90,575 maturity value War Savings Bonds, Series F, due in 1952. These Bonds will remain under pledge with the trustees.

During the seven years 1936-1942 publicly held indebtedness of Reading Company and its leased or operated lines, and fixed charges thereon, have been reduced as follows:

	Bonds Held by Public	Fixed Charges on Publicly-held Bonds
January 1, 1936	\$146,636,741.22	\$6,355,726.64
December 31, 1942	128,223,760.17	5,339,465.43
Reduction	\$18,412,981.05	\$1,016,261.21

Long Term and Other Debt

Changes occurred during the year in the long term and other debt of the Company as follows:

	Funded debt	Equipment Obligations
Outstanding December 31, 1941	\$111,652,968.11	\$4,856,319.36
Retired during year	3,596,000.00	1,007,001.08
Acquired for investment	2,630,000.00	
Outstanding December 31, 1942	\$105,426,968.11	\$3,849,318.28

EDWARD W. SCHEER, President.



NORFOLK AND WESTERN RAILWAY COMPANY

Summary of Forty-Seventh Annual Report for 1942

The Norfolk and Western Railway Company handled a record volume of traffic in 1942. This is attributed to the rapid expansion of business activity throughout the year and the heavy demands of the Government for transportation facilities to move personnel and equipment for war purposes.

Gross Railway Operating Revenues increased \$19,423,000, or 16.16 per cent, over 1941. Operating Expenses increased \$12,534,000, or 19.70 per cent. Net Income decreased \$5,285,000, or 19.44 per cent. Income Balance of \$21,007,000 was equal to \$14.93 per share of outstanding Common Stock.

Condensed Income Statement

	1942	Comparison with 1941	Per Cent.
Operating Revenues	\$139,600,163.63	Inc. \$19,423,249.64	16.16
Operating Expenses	76,173,018.32	Inc. 12,534,036.65	19.70
Net Revenue from Operations	\$63,427,145.31	Inc. \$6,889,212.99	12.19
Railway Tax Accruals—Federal, State and Local Taxes	46,096,493.96	Inc. 13,957,131.94	43.43
Railway Operating Income..	\$17,330,651.35	Dec. \$7,067,918.95	28.97
Rent Income—Equipment and Joint Facilities—Net.....	6,499,112.77	Inc. 1,821,404.83	38.94
Net Railway Operating Income	\$23,829,764.12	Dec. \$5,246,514.12	18.04
Non-Operating Income	832,237.00	Dec. 33,515.11	3.87
Gross Income	\$24,662,001.12	Dec. \$5,280,029.23	17.63
Deductions from Gross Income:			
Interest on Funded Debt.....	\$2,116,262.50	Dec. \$4,616.66	.22
Other Deductions	636,974.04	Inc. 9,826.15	1.57
Net Income	\$21,908,764.58	Dec. \$5,285,238.72	19.44
Dividends on Adjustment Preferred Stock—\$4.00 per share	901,329.00	Dec. 10,526.00	1.15
Income Balance	\$21,007,435.58	Dec. \$5,274,712.72	20.07

NOTE: NET RAILWAY OPERATING INCOME was equivalent to 4.30 per cent earned upon the Company's Railway Property Investment, compared with 5.33 per cent in 1941.

Condensed Profit and Loss Statement

Credit Balance, January 1	\$173,726,660.48
Credits:	
Income Balance for Year.....	\$21,007,435.58
Miscellaneous Net Credits.....	475,762.67
Total Credits	21,483,198.25
Charges:	
Appropriations of Surplus for Dividends on Common Stock	\$14,064,830.00
Miscellaneous Net Charges.....	1,095,040.48
Total Charges	15,159,870.48
Credit Balance, December 31.....	\$180,049,988.25

Dividends

Dividends of \$1.00 per share quarterly a total of \$4.00 per share, or \$901,329, were paid upon the outstanding Adjustment Preferred Stock. Dividends of \$2.50 per share quarterly, a total of \$10.00 per share, or \$14,064,830, were paid upon the outstanding Common Stock.

Taxes

Railway tax accruals were \$46,096,000, an increase over 1941 of \$13,957,000, or 43.43 per cent. Taxes amounted to 33 cents per dollar of Operating Revenues, to \$2,113 for each employee, to \$33 for each share of Common Stock, to 210 per cent of Net Income after taxes, and to 8 per cent of Railway Property Investment. All Federal taxes—\$40,321,000—representing 87.47 per cent of all tax accruals for the year, increased \$13,366,000, or 49.58 per cent, due in part to larger revenues, but chiefly because of increases in Federal tax rates. Accruals for Federal Excess Profits tax, included above, amounted to \$23,265,000 at the 90

per cent rate, an increase over the preceding year of \$12,515,000. Railroad Retirement and Unemployment Insurance taxes amounted to \$2,729,000, an increase of \$359,000, because of increases in employment and payrolls.

Federal Excess Profits Tax—Post-War Credit

Under the provisions of the Revenue Act of 1942, this Company is entitled to a post-war credit of 10 per cent of its Federal Excess Profits tax for 1942. The Company will receive United States Government bonds in the amount of this credit. These bonds will bear no interest and cannot be negotiated, assigned or pledged until cessation of hostilities. Bonds to be received for the 1942 credit mature December 31 of the second calendar year beginning after the war ends.

No adjustment for the post-war credit, estimated at \$2,326,500, to which this Company is entitled for the year 1942, has been made either in reduction of Railway tax accruals or credits to income.

Reserve Fund For Taxes and Contingencies

The Company has established a reserve fund to meet taxes, and to provide for future contingencies. On December 31, 1942, this fund aggregated \$40,226,000, an increase of \$20,186,000 over the previous year, and is invested in United States Tax Savings and Treasury Notes.

Transportation Rates

The increases in passenger fares and freight rates, which became effective, by order of the Interstate Commerce Commission, on February 10 and March 18, 1942, respectively, are now under attack by several Federal and State agencies, and their cancellation is being sought. The railroads are defending the continuance of the increases, which added \$3,750,000 to this Company's gross revenues for the year 1942. The increases were authorized to provide revenue to meet higher wage rates and vacations with pay to employees, granted in 1941 as a result of mediation before an Emergency Fact-Finding Board, which added \$6,400,000 to the Company's payroll costs in 1942.

Financial

The Capital Stock held by the public was \$163,097,800, a decrease of \$232,500, and represented 76.05 per cent of outstanding stock and bond capitalization. On December 31, 1942, the Company's stockholders numbered 13,851.

The Funded Debt held by the public was \$51,365,532, a decrease of \$81,000, and represented 23.95 per cent of capitalization so held. Since December 31, 1930, the Company has reduced its direct total Funded Debt by \$60,630,000, or 54.14 per cent.

Securities in the voluntary sinking fund for retirement of Funded Debt had a par value of \$1,424,800 and a market value of \$1,688,991.

War Service

Since September, 1939, when the war started in Europe, this Company has expended and authorized more than \$75,000,000 for the construction and purchase of new cars and locomotives and expansion of key terminals and other facilities necessary to meet increased traffic demands incident to the war effort.

This policy of preparedness has enabled the Company so far to meet all transportation requirements, both military and civilian, which it expects to continue to do provided it can secure the necessary materials for maintenance purposes and for new equipment as required.

In addition to constructing, in its shops, 17 new locomotives and other equipment for its own service, and keeping its own locomotives and cars in proper repair and thereby available for maximum service, this Company during the year made heavy

[Advertisement]

repairs to 43 locomotives of neighboring railroads and industries. Also, a substantial amount of work was done for the Army, Navy and war industries.

Employees

Employees during the year averaged 21,818. There were 1,731 employees in the armed forces on December 31, 1942. Railway Property Investment of \$553,556,000 averaged \$25,372 per employee. The Company's total payroll for 1942 was \$47,183,000, an average of \$2,163 per employee. Payments by the Company during the year for the benefit of employees, in addition to wages and salaries, totaled \$3,041,387, an average of \$139 per employee. These payments included Railroad Retirement tax, Federal Unemployment Insurance tax, expenses of Employees' Relief Fund and payments under Supplemental Pension Plan.

[Advertisement]

NEWS

(Continued from page 735)

has ever known." However, this prediction, as Judge Arnold put it, contemplates that "you have a situation where you do not require vast aggregations of capital, for the state controls the highways of the air—if the state maintains airports and communications, I mean."

As to the past, Judge Arnold complained about former arrangements between the Railway Express Agency and the air lines. Activities of the rate bureaus look to him like "collusive making of rates," because the Interstate Commerce Commission cannot "as a practical matter" do much of the "400,000 rates" filed in a year. Finally, the judge told of his efforts to prevent I. C. C. approval of the motor carrier merger involving truckers operating along the Atlantic seaboard from Maine to Florida. He called such a combination "ruinous competition" to small truckers. His observations, he went on, would also apply to waterway transportation, adding "I can go on indefinitely." But a question from a committee member diverted the judge to a discussion of the Department's investigation of finance companies.

Joint Bus Service Approved

To make a joint action plan of two bus operators effective in compliance with its General Order No. 11, the Office of Defense Transportation on April 2 issued special order ODT B-40, under which Southwestern Greyhound Lines and Santa Fe Trail Transportation Company will interchange tickets, stagger schedules, pool facilities and divert traffic to each other to relieve overloads and eliminate extra sections, in order to provide maximum service with existing equipment for Army installations in the area served by operations between Albuquerque, N. M., and Tucumcari.

C. P. R. to Resume Lake-Freight Shipments About April 28

The Canadian Pacific has announced that its rail-lake freight service between New England-New York-Eastern Canada and Chicago-Milwaukee and points beyond via the C. P. R. Great Lakes line, will resume operations on or about April 28. West-bound sailings will begin from Port McNicoll, Ont., on April 28, from Chicago

about May 1 and from Milwaukee about May 2—with regular sailings from each of these ports thereafter. Shipments made prior to the above dates will be given free storage until the first steamer leaves port.

To insure equitable distribution of available steamship space, special permits will be required for eastbound shipments. Application must be made by shipper to the agent at point of origin and requests will be relayed to W. D. Beck, district manager, Car Service Division, A. A. R., who has sole authority to issue the permits.

Proposes Salary Increases for Locomotive Inspectors

Salary increases for the director of locomotive inspection and his assistants and the appointment of five additional inspectors are proposed in H.R. 2399 which has been introduced in the House by Chairman Lea of the committee on interstate and foreign commerce.

Under the bill, the salary of the director would be increased from \$7,500 a year to \$8,000, while his two assistants would receive \$7,000 instead of \$6,000. Inspectors would be raised from \$4,000 to \$4,600, and district inspectors would no longer be required to provide for clerical assistance out of their annual allowance for office expenses. The clerical assistance would be provided by the Interstate Commerce Commission, leaving the allowance (with an upper limit of \$1,000 as at present) for "office rent, stationery, and incidental expenses."

Restrictions in Permits of Motor Contract Carriers

Reporting on the No. MC-60058 proceeding which was "looked to by all interested parties as a test case," the Interstate Commerce Commission, Division 5, has adhered to its previous conclusion that in issuing contract-carrier permits it is not restricted to the establishment of territorial limitations but may also specify the operations authorized in terms both of the commodities which may be transported and the class of shippers which may be served, subject to the sole qualification that in "grandfather" permits such terms must be consistent with applicant's past operations.

The position to which the commission thus adhered is the so-called "Keystone" restriction, first established in *Keystone Transp. Co. Contract Carrier Application*,

Wage Demands

In September, 1942, non-operating employees of railroads demanded a wage increase of 20 cents per hour, with a minimum of 70 cents per hour, and a union shop. This was followed in January, 1943, by demands of the operating employees for an increase of 30 per cent in their wages, with a minimum increase of \$3.00 per day. Both demands are in addition to the wage increases granted in 1941 as a result of mediation before an Emergency Fact-Finding Board. Emergency Boards have been appointed by the National Railway Labor Panel to conduct hearings and to make recommendations to the President of the United States. Hearings on dispute affecting the non-operating employees began on March 1, 1943. If both demands should be granted in full, the Company's annual payroll would be increased by approximately \$12,500,000.

W. J. JENKS, President.

19 M. C. C. 475. That involved 122 applications of carriers operating under contracts with retail grocery chains. However, petitions for reconsideration of that proceeding were withdrawn, pending the outcome of the present case which, as the commission put it, "was considered more suitable as a vehicle to test the principle of the Keystone case."

The present case involved applications of Simon McAteer and Simon McAteer, Jr., of Hawthorne, N. J., contract carriers for the Great Atlantic & Pacific Tea Company. They get "grandfather" permits for operations in the territory surrounding Paterson, N. J., "as a contract carrier by motor vehicle for the transportation under individual contracts with persons . . . who operate retail stores, the business of which is the sale of food, of such merchandise as is dealt in by wholesale, retail, and chain grocery and food business houses, and, in connection therewith, equipment, materials, and supplies used in the conduct of such businesses. . . ."

The majority report represents the view of Commissioners Rogers and Patterson. As he had in the Keystone case, Commissioner Lee dissented in part, questioning "both the legality and the wisdom of the Keystone restriction."

Club Meetings

The Northwest Locomotive Association will meet at 8 p. m. on April 19 at Woodruff Hall, St. Paul, Minn. A paper entitled "The Utilization and Distribution of Steam in Locomotive Cylinders" will be presented by Walter Smith, western manager of the Pilliod Company, Chicago.

The Car Department Association of St. Louis will meet at 8 p. m. on April 20 at the Hotel De Soto. G. W. Thomas, of the Deep Rock Oil Corporation, Cushing, Okla., will address the meeting on "The Railroad Car Man's Part in Moving Tank Cars."

The Canadian Railway Club will meet on April 12 at the Hotel Windsor. Capt. R. Stanley Rogers, war products liaison officer of the Celanese Corporation of America, and A. G. Caprio, technical assistant to the vice-president of the same company, will address the meeting on the subject of "The Romance of Plastics"—to be illustrated by sound moving pictures, models, etc.

The New England Railroad Club will

meet at 6:30 p. m. at the Hotel Touraine, Boston, on April 23. H. F. McCarthy, director of the division of traffic movement of the ODT, will speak on "War Traffic and Its Effect on the U. S. Railroads." The annual banquet and entertainment usually held by this club in May of each year has been postponed this year because of war conditions.

The Railway Club of Pittsburgh will hold its next meeting at 8 p. m. on April 22 at the Fort Pitt Hotel. It will be a "Ladies Night" and the guest speaker will be Raymond Loewy, industrial designer, of New York, who will speak on "Station, Passenger Equipment, and Locomotive Design and Styling." Lantern slides will be used to complement the address.

The Car Foremen's Association of Chicago will meet at 8 p. m. on April 12 at the LaSalle Hotel. Harry Guilbert, director of safety of the Pullman Company, will address the meeting on the subject of "Saving Manpower for War Power."

A dinner-meeting under the auspices of the New England Shippers Advisory Board will be held at the Falmouth Hotel, Portland, Me., on April 29 and all shippers and receivers of freight in Maine and New Hampshire are invited to attend. The principal speaker will be Colonel J. Monroe Johnson of the Interstate Commerce Commission, who will discuss wartime transportation, as it may affect Northern New England. Other speakers will be William H. Day, chairman of the New England Shippers Advisory Board, and Harry S. Kearney, district manager of the ODT, Portland, Me. The program will include an open forum at which shippers and receivers will be given the opportunity to state their views and secure information on transportation problems.

52 Injured, 2 Killed in Rock Island Head-On Collision

Two enginemen were killed and two firemen and about 50 passengers were injured in a head-on collision between a scheduled passenger train and a troop train on the Chicago, Rock Island & Pacific about four miles east of Little Rock, Ark., at 12:20 p. m. on April 4. The accident occurred on relatively level, tangent single track, about 200 ft. west of a 1-deg. 2-min. curve. The track in this vicinity is not equipped with block signals, the trains being operated by train orders and timetable.

The passenger train involved was No. 45, westbound from Memphis, Tenn., to Hot Springs, Ark., and was running about 45 min. late. It consisted of locomotive No. 888, a combination baggage-mail car, two coaches, a chair car, a diner, a lounge car and two sleepers. The troop train, Extra 1703, eastbound from Little Rock to Memphis, consisted of engine No. 1703, one refrigerator car for equipment, six tourist sleepers, a diner and a caboose.

In the accident both engines were seriously damaged and one was turned over, nearly clear of the track, while the other was derailed but remained upright. The refrigerator car on the troop train was seriously damaged and the vestibule at the front end of the tourist sleeper immediately behind was slightly damaged. The front trucks of this sleeper were also de-

railed, while the remaining cars in the troop train remained on the rails. On the passenger train, the baggage-mail car and one coach immediately behind were derailed. Of the passengers on the troop train, none were injured, while only one of the 50 injured on the passenger train was reported seriously injured.

The six tourist sleepers at the rear of the troop train were pulled back into Little Rock and rerouted to Memphis over the Missouri Pacific. The passengers on No. 45 were transferred to a new train made up at Little Rock and backed out to the site of the accident and arrived in Hot Springs only 4 hr. and 14 min. late. The track was cleared about 10 p. m.

Pending an investigation by the Interstate Commerce Commission, which was held a few days after the accident, the cause of the accident has not been ascertained.

Atlantic States Shippers Board to Meet April 14

Current transportation problems will be discussed at the regular meeting of the Atlantic States Shippers Advisory Board at the Hotel Seneca in Rochester, N. Y., on April 14. Charles H. Vayo, of Rochester, general chairman of the organization and general traffic manager of the Eastman Kodak Company, will preside.

Features of the morning session will include an address by Col. E. C. R. Lasher, of Washington, D. C., deputy chief of the Traffic Control Division of the Army Transportation Corps; announcement of the forecast of carloadings in the Board territory for the second quarter of 1943, and reports by the executive, legislative and freight loss and damage prevention committees and the special committee of seven.

E. C. Wampler, of Syracuse, N. Y., president of the Carrier Corporation, will be the luncheon speaker. At the afternoon session, R. W. Brown, president of the Lehigh Valley Railroad, will tell of the activities of the Board's railroad contact committee, and there will be reports from the several committees. Ralph E. Clark, manager of the Closed Car Section of the Car Service Division of the Association of American Railroads, will speak on the national transportation situation.

Third Emergency Board Hears Disputes at Chicago

A third emergency board, in addition to the one hearing the demands of the non-ops and the one hearing the Diesel cases, continued this week to hear testimony on the demands of employees of the Chicago, North Shore & Milwaukee, the Columbus & Greenville, the Wichita Falls & Southern and the Meridian & Bugbee River. The board is composed of Richard F. Mitchell, chief justice of the supreme court of Iowa, as chairman; Robert D. Calkins, dean of the school of business of Columbia University; and Walter C. Clephane, an attorney of Washington. Hearings were started on March 29, but after brief sessions on that morning and the afternoon of the next day, they were adjourned until the afternoon of the following day.

Employees of the North Shore, repre-

sented by the Brotherhood of Railroad Trainmen and the Brotherhood of Locomotive Firemen & Enginemen, are seeking a wage of \$1.05 an hour for motormen and conductors and 95 cents an hour for collectors, with time and one-half after eight hours. In addition, they seek to have terminated, a present arrangement, placed in effect a year ago, under which trainmen of these unions are prohibited from operating North Shore trains south of Howard street in Chicago.

I. C. C. Statistics Bureau's Monthly Comment

Analyzing February revenue and expense figures in the latest issue of its Monthly Comment on Transportation Statistics, the Interstate Commerce Commission's Bureau of Transport Economics and Statistics shows that the passenger-revenue index was above that of the previous month after two months in which it had been receding.

This index, calculated on the basis of 1935-39 figures as 100 and adjusted for seasonal variations, was 331.9 for February, as compared with January's 325.2, December's 332.2, and November's 335.6. The February freight-revenue index calculated on the same basis was 210.4 as compared with January's 213.6, December's 205.2, and November's 206.3. The earnings for February and this year's first two months, as released by the Association of American Railroads, are reported elsewhere in this issue.

Commenting on the February expenses, the I. C. C. Bureau noted that the operating ratio for that month was 61.6, compared with 63.2 for January and 70.8 for February, 1942. Attention was called to the fact that operating expenses for this year's first two months included depreciation charges of \$52,904,252, an increase of 44.6 per cent above the comparable 1942 period; while charges for amortization of defense projects totaled \$19,860,870, an increase of 151.3 per cent.

With complete income figures for January available, the Bureau pointed out that the net income for that month amounted to \$62,979,830, whereas federal income and profits tax accruals totaled \$87,943,317. "The January income taxes," it said, "were over four times as large as those for January, 1942, and 39.07 per cent larger than one-twelfth of the total for the year 1942. The latter is the better comparison because in January, 1942, the railways did not know what the 1942 income tax rates would be. The increase of 39.07 per cent is in part explained by the fact that carry-over losses will not be available for tax deductions in 1943 to the same extent as in 1942."

The bus statistics given show that in 1942 Class I motor carriers of passengers reported passenger revenues totaling \$268,226,269, "an increase over 1941 of 73.5 per cent, in contrast with a corresponding increase on the Class I railways of 99.8 per cent." The bus lines carried 365,045,896 passengers last year, "an increase of 76.2 per cent, in contrast with a corresponding increase of 37.6 per cent on the Class I railways." The average fare per passenger on buses declined from 75 cents in 1941

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to 73 cents in 1942; while the average fare per passenger per railway rose from \$1.06 to \$1.54. In the latter connection the average journey per road rose from 60.3 miles to 80.2 miles, while no figure for the average journey of the bus passenger is available.

Appraising the recent accident record of the railroads, the Bureau called it "less favorable than the best safety record in the past," but "much better than it was in the peacetime boom of the 1925-1929 period." The 7.84 train accidents per million locomotive miles for 1942, it pointed out, may be compared with an average of 10.66 for the five-year period, 1925-1929, and a low of 4.83 in 1938.

The discussion of employment statistics noted that the number of employees "has remained almost stationary from July, 1942, to February, 1943." When adjusted for season according to the 1935-39 average, "the index of railway employment advanced during this period to 134.4 in January and receded to 131.9 in February, but this is misleading to the extent that the usual seasonal changes have been modified by war conditions.

Examiner Upholds Railroads in St. Louis Controversy

The application of the City of St. Louis, Mo., to the Interstate Commerce Commission for an order of the commission to require the Terminal Railroad Association and connecting proprietary railroads to make certain track changes on the west side of the Mississippi River at St. Louis and to reroute certain trains on the east side of the river so they will cross the city-owned MacArthur Bridge instead of the terminal company's bridge would be dismissed, if the proposed report of Examiner G. H. Mattingly is approved, with the finding that the commission has no authority to require such action, that the city is not competent to seek approval of the east side changes, and that the changes on the west side are not in the public interest.

The examiner's proposed report is the outcome of hearings reported in *Railway Age* of September 26, 1942, page 507, and October 3, 1942, page 546, in which the contentions of the parties concerned were outlined. The commission was asked to order the removal of an elevated double track on a portion of the St. Louis waterfront where the federal government is developing a park known as the Jefferson National Expansion Memorial, primarily because the elevated line was alleged to mar the park, and to order the construction of a temporary line at ground level to accommodate train operations until such time as a permanent plan for the development of rail facilities along the waterfront shall be formulated.

Tied with this proposal was another, that the trackage of the terminal company and of various railroads in and approaching East St. Louis, Ill., be so rearranged that passenger trains of the Alton, New York Central, Chicago & Eastern Illinois, St. Louis Southwestern and New York, Chicago & St. Louis, which now enter and leave St. Louis by the terminal company's bridge, would instead use the city-owned

bridge. The railroads contended that the two projects were not logically related, that the matter was beyond the jurisdiction of the commission, and that the city lacked legal power to bring about such changes.

The examiner's report proposed findings on several legal questions involved. In his opinion the city is entitled to assert its authority to require the trackage changes sought within its boundaries, subject to the powers of the federal government as expressed in the Interstate Commerce Act, but lacks power to require or to seek authority for the changes proposed in tracks outside the city limits. On that ground he recommended dismissal of that part of the application concerning the east side project.

Turning to a consideration of the city's proposal for the west side project, the examiner suggested that the commission should here find that, while it has no authority to require a railroad to replace one line by another or to require operation under a joint trackage arrangement, its authority must be obtained before such changes can be effected, since the project would involve abandonment of existing facilities and construction of a new line to take their place. Because it would be a temporary measure, introducing increased operating difficulties and additional grade crossings, because the new trackage proposed would be subject to overflow during floods, and because, though the city and the federal government would be the beneficiaries of the project, the railroads would be required to bear the expense of the work, the examiner recommended that the commission should not approve the west side changes.

McNear Returns Checks to O. D. T.

George P. McNear, Jr., president of the Toledo, Peoria & Western, on April 6, returned four checks, totaling approximately \$162,000, which he had received on April 2, to Joseph B. Eastman, director of the Office of Defense Transportation because "the checks were transmitted with conditions which made it clear the O. D. T. is trying to evade payment for T. P. & W. properties which have been taken by the government." Mr. McNear said they were to be "charged against the just compensation due the railroad for its properties," and under those conditions were not acceptable. He said the government took \$733,000 in cash and returned only \$135,000, the remainder being used to pay obligations of the railroad.

The controversy over the funds of the railroad follows the taking over of the railroad by the government in March, 1942. On March 24, 1943, President Roosevelt issued an executive order authorizing the O. D. T. to make advances out of earnings. Therefore such advances had been made out of funds on hand when the property was taken over. The order stipulated that the advances involved are to be "for the discharge of lawful obligations of the T. P. & W. and for the preservation of the real and personal property, corporate organization and franchises, rights and other assets—but not including payments of executive salaries beyond amounts, the director of O. D. T. deems necessary for the

foregoing purposes and not including payment of dividends.

On March 31, Mr. McNear wired the O. D. T. demanding that it pay various obligations "without further delay." Outstanding obligations he asserted totaled about \$170,000 and involved unpaid interest, income taxes and other matters. He demanded that the O. D. T. charge against the railroad "only that part of each item that was due and payable when the request for payment thereof was originally made," and that the part charged against the railroad be deducted at the time of final settlement with the corporation "from the just compensation then found to be due the railroad on account of the taking of its properties. Mr. McNear contended that the O. D. T.'s counsel demanded another form of request from the company before paying the obligations and that in signing the form the corporation would in effect, give up its right to any compensation from the government.

Checks totaling \$162,005 payable to four creditors were delivered to Mr. McNear by the O. D. T. on April 4, with the statement that the advance was "not in response to your telegram of March 30, nor to any other telegram or letter or writing, or oral statement heretofore made, requesting advances of funds." The largest of the checks was for \$81,276.26, payable to the collector of internal revenue at Springfield, Ill. for the unpaid balance of the corporation's federal income tax for 1941, plus delinquent interest. Another, for \$38,984.37 was made payable to attorneys for the Mary E. Bailey estate, Peoria, Ill. in satisfaction of judgment entered against the railroad last year. A check for \$31,220 payable to the Central Hanover Bank & Trust Co. of New York, was for six months' interest on first-mortgage bonds of the railroad. A fourth, for \$10,525, was payable to Dorthea Reed as administratrix and guardian, for settlement of a claim against the railroad for damage arising from the death of Fuller Reed, an employee.

At the time the income tax installment fell due, Mr. McNear asked the O. D. T. to pay it. He was informed that the payment would be made providing he signed a request that included a statement that he would accept the money paid as a charge against the railroad and that he would guarantee the payment would not bind the government as to "what, if any, compensation ultimately may be due" to the corporation. Mr. McNear refused to sign that request on the ground that the admission of the payment to be a charge might make it recoverable from the corporation, and because he conceived the statement of "what, if any, compensation ultimately may be due" as an admission that the corporation might conceivably not have any payment coming from the government for the use of its railroad properties.

Grade Crossing Accidents in Canada Fewer

Statistics recently supplied by the Canadian Pacific show the number of crossing accidents in Canada in 1942 reduced by about 12 per cent as compared with 1941. These encouraging results were attributed

MAXIMUM WORK **from every pound** **of STEAM**



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eter adjustment of cut-offs at all speeds, with a minimum of physical effort, the Franklin F-2 Precision Power Reverse Gear permits the engineman to use his skill to the utmost in making every pound of steam do its maximum of work.



FRANKLIN RAILWAY SUPPLY COMPANY, INC.

**NEW YORK
CHICAGO**

In Canada: FRANKLIN RAILWAY SUPPLY COMPANY, LIMITED, MONTREAL

partly to safety campaigns instituted by the railways, government and other agencies, and partly to the fact that 1942 saw fewer automobiles on the road.

Carelessness—especially the motorist's attempt to "beat the train to the crossing"—is still judged to be the major cause of crossing accidents, and in one out of every three cases the motorist is the one who crashes into the train. In 1942 there were 111 such cases, some while the trains were standing still—a figure representing 32.3 per cent of all crossing mishaps.

Practices of Motor Carriers of Household Goods

The Interstate Commerce Commission has reopened for further hearing the Ex Parte No. MC-19 proceeding involving practices of motor common carriers of household goods. The further hearing, to be held before Examiner A. S. Parker at the Hotel Sherman, Chicago, on June 7, will be confined to matters relating to insuring of shipments, giving estimates of costs of transportation and accessorial services, and collecting dock charges.

Meetings and Conventions

The following list gives names of secretaries, dates of next or regular meetings and places of meetings:

- ALLIED RAILWAY SUPPLY ASSOCIATION.—J. F. Gettrust, P. O. Box 5522, Chicago, Ill.
- AMERICAN ASSOCIATION OF FREIGHT TRAFFIC OFFICERS.—W. R. Curtis, G. M. & O. R. R., 105 W. Adams St., Chicago, Ill.
- AMERICAN ASSOCIATION OF GENERAL BAGGAGE AGENTS.—E. P. Soebbing, Railway Exchange Bldg., St. Louis, Mo.
- AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.—B. D. Branch, C. R. R. of N. J., 143 Liberty St., New York, N. Y.
- AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.—F. O. Whiteman, Room 332, Dearborn Station, Chicago, Ill. Annual meeting, May 18-20, 1943, La Salle Hotel, Chicago, Ill.
- AMERICAN ASSOCIATION OF RAILWAY ADVERTISING AGENTS.—E. A. Abbott, Poole Bros., Inc., 85 W. Harrison St., Chicago, Ill.
- AMERICAN ASSOCIATION OF SUPERINTENDENTS OF DINING CARS.—F. R. Borger, C. I. & L. Ry., 836 S. Federal St., Chicago, Ill.
- AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.—Miss Elinor Heffern, Room 822, 310 South Michigan Avenue, Chicago, Ill. Annual meeting, October 19-21, 1943, Hotel Sherman, Chicago, Ill.
- AMERICAN RAILWAY CAR INSTITUTE.—W. C. Tabbert, 19 Rector St., New York.
- AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.—H. C. Millman, Ind. Agent, Pennsylvania R. R., Union Station, Chicago, Ill.
- AMERICAN RAILWAY ENGINEERING ASSOCIATION.—Works in cooperation with the Association of American Railroads, Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill.
- AMERICAN RAILWAY MAGAZINE EDITORS' ASSOCIATION.—Page N. Price, Norfolk & Western Magazine, Roanoke, Va.
- AMERICAN SHORT LINE RAILROAD ASSOCIATION.—J. H. Hunt, Tower Bldg., Washington, D. C.
- AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—C. E. Davies, 29 W. 39th St., New York, N. Y.
- Railroad Division.—E. L. Woodward, *Railway Mechanical Engineer*, 105 W. Adams St., Chicago, Ill.
- AMERICAN TRANSIT ASSOCIATION.—Guy C. Hecker, 292 Madison Ave., New York, N. Y.
- AMERICAN WOOD PRESERVERS' ASSOCIATION.—H. L. Dawson, 1427 Eye St. N. W., Washington, D. C. Annual meeting, April 27, 1943, Palmer House, Chicago, Ill.
- ASSOCIATION OF AMERICAN RAILROADS.—H. J. Forster, Transportation Bldg., Washington, D. C.
- Operations and Maintenance Department.—Charles H. Buford, Vice-President, Transportation Bldg., Washington, D. C.
- Operating-Transportation Division.—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.
- Operating Section.—J. C. Caviston, 30

- Vesey St., New York, N. Y.
- Transportation Section.—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.
- Fire Protection and Insurance Section.—W. F. Steffens, New York Central, Room 3317, 230 Park Avenue, New York, N. Y.
- Freight Station Section.—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.
- Medical and Surgical Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.
- Protective Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.
- Safety Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.
- Telegraph and Telephone Section.—W. A. Fairbanks, 30 Vesey St., New York, N. Y.
- Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill.
- Construction and Maintenance Section.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill.
- Electrical Section.—W. S. Lacher, 59 E. Van Buren St., Chicago, Ill.
- Signal Section.—R. H. C. Balliet, 30 Vesey St., New York, N. Y.
- Mechanical Division.—Arthur C. Browning, 59 E. Van Buren St., Chicago, Ill.
- Electrical Section.—J. A. Andreucetti, 59 E. Van Buren St., Chicago, Ill.
- Purchases and Stores Division.—W. J. Farrell (Executive Vice-Chairman), Transportation Bldg., Washington, D. C.
- Freight Claim Division.—Lewis Pilcher, 59 E. Van Buren St., Chicago, Ill.
- Motor Transport Division.—George M. Campbell, Transportation Bldg., Washington, D. C.
- Car-Service Division.—E. W. Coughlin (Assistant to Chairman), Transportation Bldg., Washington, D. C.
- Finance, Accounting, Taxation and Valuation Department.—E. H. Bunnell, Vice-President, Transportation Bldg., Washington, D. C.
- Accounting Division.—E. R. Ford, Transportation Bldg., Washington, D. C.
- Treasury Division.—E. R. Ford, Transportation Bldg., Washington, D. C.
- Traffic Department.—A. F. Cleveland, Vice-President, Transportation Bldg., Washington, D. C.
- ASSOCIATION OF RAILWAY CLAIM AGENTS.—F. L. Johnson, Claim Agent, Alton R. R., 340 W. Harrison St., Chicago, Ill.
- BRIDGE AND BUILDING SUPPLY MEN'S ASSOCIATION.—P. R. Austin, Johns-Manville Sales Corp., Merchandise Mart, Chicago, Ill.
- CANADIAN RAILWAY CLUB.—C. R. Crook, 4415 Marcell Ave., N. D. G., Montreal, Que. Regular meetings, second Monday of each month, except June, July and August, Windsor Hotel, Montreal, Que.
- CAR DEPARTMENT ASSOCIATION OF ST. LOUIS, MO.—J. J. Sheehan, 1101 Missouri Pacific Bldg., St. Louis, Mo. Regular meetings, third Tuesday of each month, except June, July and August, Hotel De Soto, St. Louis, Mo.
- CAR DEPARTMENT OFFICERS' ASSOCIATION.—F. H. Stremmel, 6536 Oxford Ave., Chicago, Ill.
- CAR FOREMEN'S ASSOCIATION OF CHICAGO.—Ralph J. Feddor, 2803 N. Campbell Ave., Chicago, Ill. Regular meetings, second Monday of each month, except June, July and August, La Salle Hotel, Chicago, Ill.
- CENTRAL RAILWAY CLUB OF BUFFALO.—Mrs. M. D. Reed, 1840-42 Hotel Statler, McKinley Square, Buffalo, N. Y. Regular meetings, second Thursday of each month, except June, July and August, Hotel Statler, Buffalo, N. Y.
- EASTERN ASSOCIATION OF CAR SERVICE OFFICERS.—J. T. Boughner, 7124 Lincoln Drive, Philadelphia, Pa.
- EASTERN CAR FOREMAN'S ASSOCIATION.—W. P. Dizard, 30 Church St., New York, N. Y. Regular meetings, second Friday of January, March, April, May, October and November, 29 W. 39th St., New York, N. Y.
- LOCOMOTIVE MAINTENANCE OFFICERS' ASSOCIATION.—C. M. Lipscomb, 1721 Parker Street, No. Little Rock, Ark.
- MASTER BOILER MAKERS' ASSOCIATION.—A. F. Stiglmeier, 29 Parkwood St., Albany, N. Y.
- NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—Ben Smart, 7413 New Post Office Bldg., Washington, D. C. Annual meeting, September 14-16, 1943, Edgewater Beach Hotel, Chicago, Ill.
- NATIONAL RAILWAY APPLIANCE ASSOCIATION.—C. H. White, Room 1826, 208 S. La Salle St., Chicago, Ill.
- NEW ENGLAND RAILROAD CLUB.—W. E. Cade, Jr., 683 Atlantic Ave., Boston, Mass. Regular meetings, second Tuesday of each month, except June, July, August and September, Hotel Touraine, Boston, Mass.
- NEW YORK RAILROAD CLUB.—D. W. Pye, 30 Church St., New York, N. Y. Regular meetings, third Thursday of each month, except June, July, August, September and December, 29 W. 39th St., New York, N. Y.

- PACIFIC RAILWAY CLUB.—William S. Wollner, P. O. Box A, Sausalito, Cal. Regular meetings, second Thursday of each alternate month, at Palace Hotel, San Francisco, Cal., and Hotel Hayward, Los Angeles, Cal.
- RAILWAY BUSINESS ASSOCIATION.—P. H. Middleton, First National Bank Bldg., Chicago, Ill.
- RAILWAY CLUB OF PITTSBURGH.—J. D. Conway, 308 Keenan Bldg., Pittsburgh, Pa. Regular meetings, fourth Thursday of each month, except June, July and August, Fort Pitt Hotel, Pittsburgh, Pa.
- RAILWAY ELECTRIC SUPPLY MANUFACTURERS' ASSOCIATION.—J. McC. Price, Allen-Bradley Company, 624 W. Adams St., Chicago, Ill.
- RAILWAY FUEL AND TRAVELING ENGINEERS' ASSOCIATION.—T. Duff Smith, Room 811, Utilities Bldg., 327 S. La Salle St., Chicago, Ill.
- RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.—J. D. Conway, 308 Keenan Bldg., Pittsburgh, Pa.
- RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with Telegraph and Telephone Section of A. A. R.
- RAILWAY TIE ASSOCIATION.—Roy M. Edmonds, 507 Shell Bldg., St. Louis, Mo. Annual meeting, May 4, 1943, Hotel Statler, St. Louis, Mo.
- ROADMASTERS' AND MAINTENANCE OF WAY ASSOCIATION.—Miss Elinor Heffern, Room 822, 310 S. Michigan Ave., Chicago, Ill. Annual meeting, September 21-23, 1943, Hotel Sherman, Chicago, Ill.
- SIGNAL APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with A. A. R. Signal Section.
- SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.—A. T. Miller, 4 Hunter St., S. E., Atlanta, Ga. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta, Ga.
- SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.—D. W. Brantley, C. of Ga. Ry., Savannah, Ga.
- TORONTO RAILWAY CLUB.—D. M. George, P. O. Box 8, Terminal "A," Toronto, Ont. Regular meetings, fourth Monday of each month, except June, July and August, Royal York Hotel, Toronto, Ont.
- TRACK SUPPLY ASSOCIATION.—Lewis Thomas, Q. and C. Company, 59 E. Van Buren St., Chicago, Ill.
- UNITED ASSOCIATIONS OF RAILROAD VETERANS.—Roy E. Collins, 112 Hatfield Place, Port Richmond, Staten Island, N. Y. Annual meeting, October, 1943.
- WESTERN RAILWAY CLUB.—E. E. Thulin (Executive Secretary), 122 S. Michigan Ave., Chicago, Ill. Regular meetings, third Monday of each month, except January, June, July, August and September, Hotel Sherman, Chicago, Ill.

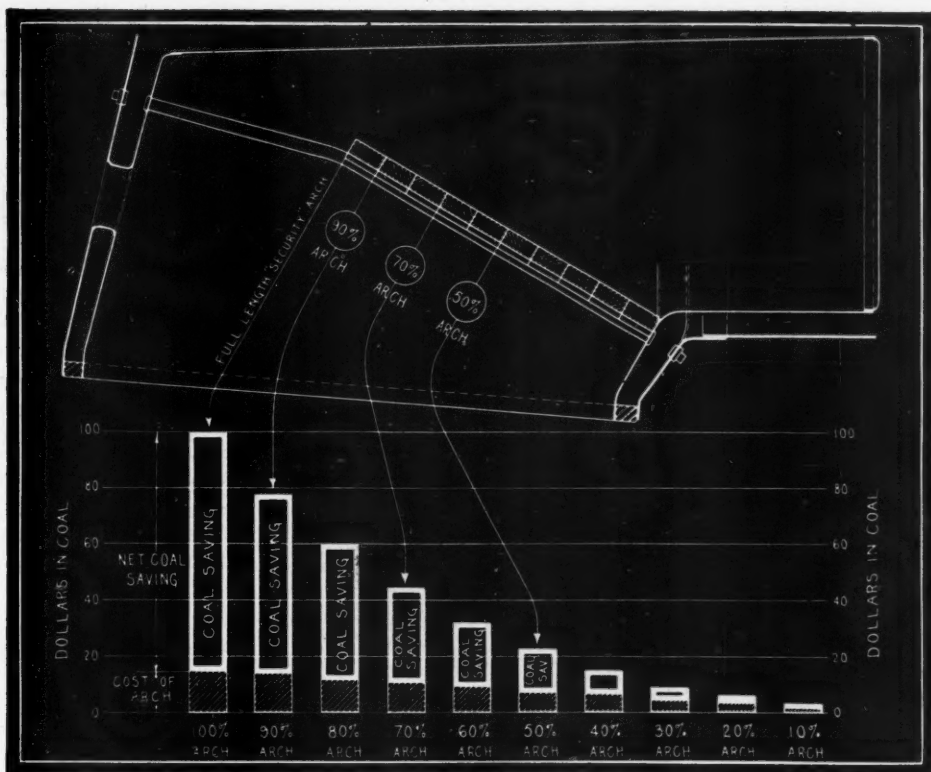
Equipment and Supplies

LOCOMOTIVES

THE PERE MARQUETTE has ordered 12 Berkshire type (2-8-4) freight locomotives from the Lima Locomotive Works for delivery in January, 1944. Inquiry for this order was reported in the *Railway Age* of March 27.

SIGNALING

THE DENVER & RIO GRANDE WESTERN will install centralized traffic control on 127 miles of single track main line between Agate, Utah and Helper, authorization for the allocation of materials having been received recently from the War Production Board. The C. T. C. control machine, to be located at Green River, Utah, will control 50 power switch machines and an arrangement of semi-automatic signals, the indications of which will authorize train movements, thus superseding time table and train orders.



THE EFFECT OF ABBREVIATED ARCHES ON FUEL SAVING

FUEL CONSERVATION... a wartime need!

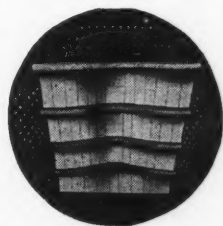
Fuel wastage is a two-fold loss; the fuel itself and the transportation necessary to haul it. Because of the strategic importance of fuel to the war program every effort must be made to conserve this vital material.

The fuel economy of Security Sectional Arches has been thoroughly proved in over 32 years of service on American railroads. But only a *complete* Arch can produce maximum fuel savings.

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Refractory Specialists



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INCORPORATED**
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*Locomotive Combustion
Specialists*

Supply Trade

The **Paxton-Mitchell Company**, Omaha, Neb., was awarded the Maritime "M" for excellence of production of parts for Liberty ships, on March 19.

A. Reamy Joyce, district sales manager of the Wood Preserving division of the **Koppers Company**, at Marietta, Ohio, died suddenly in that city on April 7.

The **Whiting Corporation**, Harvey, Ill., has been awarded the Army-Navy "E" pennant for excellence in war production. The presentation ceremonies will be held on April 20.

Frank S. O'Neil, general manager of the Indianapolis, Ind., plant of the **Link-Belt Company**, has been appointed vice-president, to succeed **James S. Watson**, who, after 50 years of service with the company, will retire from active duty, but will continue as a director of the company.

The **Philco Corporation**, by agreement with **American Steel Export Company, Inc.**, has announced the formation of the **Philco International Corporation** to handle sales of Philco products in all countries outside the United States. Offices of the new company will be at 230 Park avenue, New York.

Dr. Edgar C. Bain, since 1938 assistant to the vice-president in charge of research and technology for the **United States Steel Corporation** of Delaware, has been appointed vice-president in charge of research and technology, for the **Carnegie-Illinois Steel Corporation**, United States Steel subsidiary. The establishment of this new vice-presidency is for the purpose of further intensifying these activities for the company's war effort.

The **Formica Insulation Company**, Cincinnati, Ohio, has announced the election of five new vice-presidents. These are as follows: **W. J. Gebhart**, treasurer of the company, has been elected vice-president in charge of finances and accounting; **J. Roger White**, general sales and advertising manager, has been elected vice-president in charge of sales and advertising; **George H. Clark** has been elected vice-president in charge of engineering; **R. W. Lytle** has been elected vice-president in charge of special engineering relative to automotive and aircraft engineering; and **Ellsworth G. Williams** has been elected vice-president in charge of manufacturing.

At a meeting of the board of directors of the **Kerite Insulated Wire & Cable Company** held in New York on March 26, **C. R. R. Harris** was elected president of the company to succeed **Richard D. Brixey**, deceased. Mr. Harris is a native of Randolph county, Indiana. After completing high school and a two-year electrical course, he entered the employ of the **Western Electric Company** in 1905. In 1910 he joined the engineering staff of the **Western Union Telegraph Company** where he

was engaged for about seven years in plant engineering. In 1917 he joined the **Kerite Insulated Wire & Cable Co.** in charge of engineering. From that date until 1927, when he became vice-president and general manager of the corporation, he was associated with the design and development of **Kerite** cable for use in many special serv-



C. R. R. Harris

ices in the electric power field. Mr. Harris has been a member of the **American Institute of Electrical Engineers** for 38 years and is also a member of the **Railroad-Machinery Club**, New York.

All directors of the **Baldwin Locomotive Works** were re-elected at the annual meeting of shareholders held at Eddystone, Pa., on April 1. As reported elsewhere in this issue, **Charles E. Brinley**, president, has been elected to the newly-created position of chairman of the board and **Ralph Kelly**, executive vice-president, has been elected president. Mr. Brinley will remain chief executive officer and will continue general supervision and direction of the affairs of the company and Mr. Kelly will retain his responsibilities as principal operating officer of the company and will be in charge of the active management of



Lewis W. Metzger

the company's various divisions and wholly-owned subsidiaries.

William H. Harman has been re-elected vice-president in charge of sales, and **J. Tyson Stokes**, vice-president—legal department. **Carlos F. Noyes** was re-elected comptroller and **Charles E.**

Acker, secretary and treasurer. **Frank K. Metzger** of the **Standard Steel Works** division; **Norris H. Schwenk** of the **Cramp Brass and Iron Foundries** division; and **Frederick G. Schranz** of the **Baldwin Southwark** division were re-elected divisional vice-presidents. **Lewis W. Metzger** was elected divisional vice-president of the **Locomotive and Ordnance** division to succeed **Haldwell S. Colby**, resigned, and **W. Horace Holcomb**, formerly assistant to the executive vice-president, has been appointed assistant to the president.

Charles P. Whitehead, vice-president of sales of the **General Steel Castings Corporation**, with headquarters at Eddystone, Pa., has had his jurisdiction extended over the manufacturing and engineering departments. **P. R. Keller**, has been appointed manager of miscellaneous sales with headquarters at Eddystone.

Construction

CHICAGO, ROCK ISLAND & PACIFIC.—This road has recently awarded contracts for bridge work to **List & Weatherly**, Kansas City, Mo., to construct a mass concrete east abutment and a concrete curtain wall to protect the west abutment at **Bridge 2021** near **Aulne, Kan.**, and to construct two concrete piers on wood pile foundations and erect a 60-ft. second hand deck plate girder to replace four-panels of ballasted deck pile trestle at **Bridge 5070** near **Stevens, Tex.**

NEW YORK CENTRAL.—This road has just completed a new section of four-track railroad more than three miles long skirting the southerly edge of the **Village of Herkimer, N. Y.**, on its **New York-Chicago** main line. The relocation of the line involved the construction of 14 mi. of track, five bridges and a new station, at a cost of approximately \$3,500,000, and eliminates seven important grade crossings. The project was begun before the war and was carried out by the **State Department of Public Works** and the **New York Central** under orders of the **Public Service Commission** as a part of the grade crossing elimination program of the **State of New York**.

WAR DEPARTMENT.—The **U. S. Engineer** office, **Savannah, Ga.**, has awarded a contract, amounting to more than \$100,000 and less than \$500,000, to **Rayce Kershaw & Co.**, **Montgomery, Ala.**, for the construction of additional railroad facilities in **Georgia**.

WAR DEPARTMENT.—The **U. S. Engineer** office, **Jacksonville, Fla.**, has awarded a contract, amounting to less than \$50,000, to **A. S. Wikstrom**, **Orlando, Fla.**, for the construction of a railroad spur track in **Florida**. The **U. S. Engineer** office, **Galveston, Tex.**, has awarded a contract, amounting to less than \$50,000, to the **Bace-Marshall Construction Company**, **Houston, Tex.**, for the construction of a road and a railroad spur in **Texas**.

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saving equipment
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Now and in the Future.***



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THE SUPERHEATER COMPANY, LTD.

Abandonments

CHICAGO, BURLINGTON & QUINCY.—This company has applied to the Interstate Commerce Commission for authority to abandon a line from Humeston, Iowa, to Clearfield, about 58 miles, and a line from Merle Junction, Iowa, to Clarinda, about 27 miles.

NEW YORK CENTRAL.—In a proposed report in Finance Docket 14008 Examiner Lucian Jordan has recommended that the Interstate Commerce Commission deny this company's application for authority to abandon its line from Springport, Mich., to Jonesville, 33.03 miles, on the ground that its operating revenues have exceeded expenses for several years.

PENNSYLVANIA.—Division 4 of the Interstate Commerce Commission has authorized this company to abandon its branch extending 1.35 miles southeast from Colebrook, Pa.

PENNSYLVANIA.—This company and the Cleveland & Pittsburgh, lessor, have applied to the Interstate Commerce Commission for authority to abandon operation of and to abandon, respectively, a line from New Philadelphia, Ohio, to Roswell, 5.53 miles.

PENNSYLVANIA.—Division 4 of the Interstate Commerce Commission has authorized this company and the Philadelphia, Baltimore & Washington, lessor, to abandon operation of and to abandon, respectively, two segments of the Pomeroy branch, one from Chatham, Pa., to Avondale, 2.72 miles, and one from Avondale to Landenberg, 3.75 miles.

PENNSYLVANIA - READING SEASHORE LINES.—This road and the West Jersey & Seashore, lessor, have applied to the Interstate Commerce Commission for authority to abandon operation of and to abandon, respectively, a line from Sea Isle City, N. J., to Ocean City, 6.42 miles, and the former road has also applied for authority to abandon a 0.3-mile connecting line within the corporate limits of Ocean City.

PENNSYLVANIA.—Division 4 of the Interstate Commerce Commission has authorized this company to abandon 10 different branch lines or segments of branch lines in Pennsylvania with an aggregate mileage of 11.6. The lines are: Beaver Dam branch, at Flinton, 0.74 mile; Bolivar branch, at Bolivar, 0.97 mile; Brady Run branch, at Glen Campbell, 0.65 mile; Whitney branch, at Palmers, 1.45 miles; a 0.34-mile segment at the end of the Bens Creek branch; a 1.51-mile segment at the end of the Hillman branch; a 0.74-mile segment at the end of the Martin branch; a 1.53-mile segment at the end of the McGees branch; a 1.79-mile segment at the end of the Pine Run branch; and a 1.88-mile segment at the end of the South Fork branch.

ST. LOUIS-SAN FRANCISCO.—Division 4 of the Interstate Commerce Commission has authorized this road to abandon its branch from Ash Grove, Mo., to Phenix, 5.91 miles.

Financial

BOSTON & MAINE.—Annual Report.—The 1942 annual report of this road shows that net income, after interest and other charges, amounted to \$10,497,571, an increase of \$5,445,377 over the 1941 figure. During 1942 a total of 26,057,057 passengers were carried, an increase of 7,501,493 over the number carried in 1941. Of this total, 10,379,525 were commuters, representing an increase of 1,657,221 over the 1941 figure. Total passenger revenue for the year amounted to \$14,967,404, an increase of 82 per cent over 1941 and the highest passenger revenue since 1929. Operating ratio for the year was 63.56, the lowest recorded in the B. & M.'s history. New all-time operating records were established in gross tons per train, train-miles per train-hour, gross ton-miles per train-hour, freight car-miles per day, freight car load, net ton-miles per car-day, locomotive-miles per day and in the operating ratio. Selected items from the income statement follow:

	1942	Increase or Decrease Compared with 1941
Average Mileage Operated	1,858.13	-44.57
RAILWAY OPERATING REVENUES	\$77,646,670	\$18,443,259
Maintenance of way and structures	9,178,075	1,830,147
Maintenance of equipment	11,054,691	2,476,403
Transportation	25,891,789	4,564,089
TOTAL OPERATING EXPENSES	49,350,039	9,052,567
Operating ratio	63.56	-4.51
NET REVENUE FROM OPERATIONS	28,296,631	9,390,692
Railway tax accruals	9,069,776	4,031,745
RAILWAY OPERATING INCOME	19,226,855	5,358,947
Net Rents—Dr.	3,405,067	29,757
NET RAILWAY OPERATING INCOME	15,821,788	5,329,190
Total other income	1,692,912	370,907
TOTAL INCOME	17,514,700	5,700,097
Rent for leased roads	1,149,786	-178,130
Interest on funded debt—Fixed Interest	3,036,357	-87,230
TOTAL FIXED CHARGES	4,790,435	185,910
NET INCOME	10,497,571	5,445,377
Disposition of net income:		
Income applied to Sinking and other reserve funds	1,161,972	.....
Income appropriated for investment in physical property	3,902,161	1,680,777
Miscellaneous Appropriations of income	5,433,438	4,820,501
Total Appropriations of Income	10,497,571	6,501,278
BALANCE TRANSFERRED TO PROFIT AND LOSS	\$.....	-\$1,055,901

CHICAGO, NORTH SHORE & MILWAUKEE.—*New Trustees Appointed.*—Edward J. Quinn, of River Forest, Ill., and John B. Gallagher, of Libertyville, Ill., have been appointed trustees of the Chicago, North Shore & Milwaukee, by Federal Judge Michael L. Igoe, succeeding A. A. Sprague

and Bernard J. Fallon. Judge Igoe explained the new appointments by saying that Messrs. Sprague and Fallon are not eligible or qualified by reason of the fact that they are trustees of the Chicago Rapid Transit Company which is a creditor of the North Shore. Mr. Fallon continues as executive officer of the North Shore, with headquarters at Chicago.

CHESAPEAKE & OHIO.—Equipment Trust.—This company has applied to the Interstate Commerce Commission for authority to assume liability for \$5,200,000 of serial equipment trust certificates of 1943 to be sold by competitive bidding (See *Railway Age* of April 3, page 696).

FONDA, JOHNSTOWN & GLOVERSVILLE.—Creditors Accept Reorganization Plan.—The plan of reorganization of this road approved by the Interstate Commerce Commission and the district court has been accepted by all classes of creditors to whom it was submitted, according to a certificate of Division 4 of the commission. Acceptance was unanimous except that 0.65 per cent of the holders of first consolidated general refunding mortgage bonds.

INDIANA HARBOR BELT.—Annual Report.—The 1942 annual report of this road shows net income, after interest and other charges, of \$1,232,675, as compared with net income of \$1,385,819, in 1941. Selected items from the income statement follow:

	1942	Increase or Decrease Compared with 1941
Average Mileage Operated	124.38	-.04
RAILWAY OPERATING REVENUES	\$15,937,603	+\$1,126,420
Maintenance of way and structures	979,973	-88,310
Maintenance of equipment	1,458,655	+132,398
Transportation	7,552,141	+1,011,074
TOTAL OPERATING EXPENSES	10,839,075	+1,150,727
Operating ratio	68.01	+2.60
NET REVENUE FROM OPERATIONS	5,098,527	-24,307
Railway tax accruals	2,087,386	+300,083
RAILWAY OPERATING INCOME	3,011,141	-324,390
Equipment rents—Net Dr.	980,838	-164,455
Joint facility rents—Net Dr.	308,148	+3,921
NET RAILWAY OPERATING INCOME	1,722,155	-163,856
Total Other Income	50,484	+3,680
TOTAL INCOME	1,772,640	-160,175
Rent for leased roads and equipment	98,303	+1,165
Interest on funded debt	393,963	-38
TOTAL FIXED CHARGES	501,781	-3,675
NET INCOME	\$1,232,675	-\$153,144

MAINE CENTRAL.—Annual Report.—The annual report of this company for 1942 discloses that net income, after interest and other charges, amounted to \$1,774,441—the best in the history of the company, exceeding even net income in 1929 when gross revenues were much higher. Freight revenues for 1942 increased \$1,277,775 over those of 1941 but, due to the lower level of freight rates, did not equal the figures for

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TO KEEP railroad equipment up to par is a recognized essential in meeting today's intensive requirements . . . Since efficient Air Brakes are vital to satisfactory train operation, the necessity of sustaining the reliability of detail apparatus is even more urgent than ever before. A major help to this end is to have a stock of Westinghouse standard packaged parts of all air brake devices on hand for meeting repair needs. Being exact duplicates of the replaced details in every respect, they require a minimum of time and labor to install, and give the same trouble-free and lasting service as the originals . . . Sturdy cartons, trade marked for ready identification, provide for shipping protection, convenient storage, and easy handling . . .

The way to true maintenance economy is marked by the exclusive use of "genuine" Westinghouse repair parts.

WESTINGHOUSE AIR BRAKE CO.

WILMERDING, PENNSYLVANIA

April 10, 1943

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the 1921-30 period when freight revenue was over \$14,000,000 in each year. Operating expenses increased \$1,484,904 and the road's tax bill increased 1,064,482 over 1941. New records were established in average net tons per train, average car-miles per day, gross tons per train; gross ton-miles per train-hour, pounds of coal per 1,000 gross ton-miles and in net ton-miles per car-day. The Maine Central handled 1,249,564 passengers in 1942, an increase of 642,267 over the number carried the previous year. Passenger revenue for the year amounted to \$2,452,415—an increase of 115 per cent over 1941 and the highest since 1930.

LOUISIANA & ARKANSAS.—Lease and Operation.—Division 4 of the Interstate Commerce Commission has authorized this road to renew, with slight modifications, an agreement under which it has operated under lease a branch of the Missouri Pacific from Wildsville, La., to Concordia Junction, 14.7 miles, and under trackage rights on the same road's line from Concordia Junction to Vidalia, 8.32 miles.

MIDDLE CREEK.—Acquisition.—Division 4 of the Interstate Commerce Commission has authorized this company, a wholly owned subsidiary of the Peabody Coal Company, to acquire at cost less depreciation a line from Hartland, W. Va., to Bickmore, 4.1 miles, owned by the Hartland Colliery Company, which it has operated under lease.

NEW YORK, ONTARIO & WESTERN.—Annual Report.—The 1942 yearly income account of this road shows a net deficit, after interest and other charges, of \$1,124,512, as compared with a net deficit of \$1,551,662 in 1941. Selected items from the income statement follow:

	1942	Increase or Decrease Compared with 1941
RAILWAY OPERATING REVENUES	\$7,441,395	+\$1,254,878
Maintenance of way and structures	866,567	+220,110
Maintenance of equipment	1,443,490	+161,901
Transportation—Rail Line	3,607,537	+468,761
TOTAL OPERATING EXPENSES	6,412,103	+884,399
Operating ratio	86.17	-3.18
NET REVENUE FROM OPERATIONS	1,029,292	+370,481
Railway tax accruals	345,951	-104,222
RAILWAY OPERATING INCOME	683,342	+474,704
Net Rents—Dr.	483,311	+58,647
NET RAILWAY OPERATING INCOME	200,031	+416,056
Total other income	23,731	+5,462
TOTAL INCOME	223,762	+421,518
Rent for leased roads and equipment	51,299	-4,435
Interest on funded debt	1,214,629	-15,462
TOTAL FIXED CHARGES	1,334,297	-15,724
NET DEFICIT	\$1,124,512	-\$427,150

NORFOLK SOUTHERN.—Annual Report.—The 1942 yearly report of this road shows a net income, after interest and other

charges, of \$702,101, as compared with a net deficit of \$211,750 in 1941. Selected items from the income statement follow:

	1942	Increase or Decrease Compared with 1941
Average Mileage Operated	733.02	-.15
RAILWAY OPERATING REVENUES	\$7,879,771	\$2,238,933
Maintenance of way and structures	1,231,136	298,890
Maintenance of equipment	839,879	132,441
Transportation	2,441,898	483,934
TOTAL OPERATING EXPENSES	5,164,291	1,026,813
Operating ratio	65.54	-7.81
NET REVENUE FROM OPERATIONS	2,715,480	1,212,121
Railway tax accruals	1,153,676*	769,428
RAILWAY OPERATING INCOME	1,561,805	442,693
Equipment and joint facility rents—Net Lr.	365,601	95,806
NET RAILWAY OPERATING INCOME	1,196,204	346,887
Total other income	192,598	4,419
TOTAL INCOME	1,388,802	351,306
Rent for leased roads and equipment	65,000	40,573
Interest on funded debt	243,529	-583,357
TOTAL FIXED CHARGES	311,812	-559,994
INCOME AFTER FIXED CHARGES	1,046,716	1,258,466
Contingent Charges:		
Interest on Funded Debt	344,615	344,615
NET INCOME	\$702,101	\$913,851

* Includes \$577,379.68 Federal Income and Excess Profits Tax.

SOUTHERN.—Note of Georgia Southern & Florida.—The Georgia Southern & Florida, controlled by the Southern through ownership of a majority of its stock, has applied to the Interstate Commerce Commission for authority to issue and deliver to the Southern a \$1,000,000 promissory note, payable on demand after one year and bearing interest at 6 per cent, as evidence of indebtedness for open account advances.

SOUTHERN PACIFIC.—Election of Directors and Stockholders Annual Meeting Date Change.—At the annual meeting of the stockholders of this road on April 7, at Spring Station, Ky., Kenneth L. Isaacs of Boston, Mass., was elected a member of the road's board of directors, succeeding Lawrence Coolidge, also of Boston, who is now serving with the United States Navy, and 15 other directors were re-elected. The stockholders also approved a change in the annual meeting date from the Wednesday after the first Monday in April, to the second Wednesday in May in each year beginning in 1944.

Average Prices Stocks and Bonds

	Apr. 6	Last week	Last year
Average price of 20 representative railway stocks...	37.51	35.59	25.62
Average price of 20 representative railway bonds...	76.95	76.23	67.53

Dividends Declared

Philadelphia & Trenton.—\$2.50, quarterly, payable April 10 to holders of record April 1.
Pittsburgh, Bessemer & Lake Erie.—75c, semi-annually, payable October 1 to holders of record September 15.

Railway Officers

EXECUTIVE

H. S. Johnson, general claim agent of the Detroit, Toledo & Ironton, has been promoted to assistant to the vice-president in charge of operations, with headquarters as before at Dearborn, Mich.

William Dougal McCaig, comptroller of the Atlantic Coast Line, has been elected vice-president—accounts and freight claims, of that road, with headquarters as before at Wilmington, N. C. In the *Railway Age* of March 27 it was incorrectly reported that Mr. McCaig had been appointed to a similar position on the Seaboard Air Line. Born on January 18, 1874, at Mt. Carmel, Pa., Mr. McCaig attended Richmond Business college at Savannah, Ga., and entered railroad service in 1891 as an office boy to the freight claim agent of the Central of Georgia. In 1892 he was appointed a stenographer to the freight claim agent, and in 1893 he became a stenographer in the auditor's office of the Brunswick & Western



William D. McCaig

(now Atlantic Coast Line). In 1894 he became clerk in the office of the auditor of receipts, Plant System (now Atlantic Coast Line), remaining in that position until 1899, when he was appointed traveling auditor. He became chief traveling auditor of the Atlantic Coast Line in 1902, auditor of station accounts in 1906, and assistant auditor of freight receipts in 1911. Mr. McCaig was advanced to assistant comptroller in 1917, and in 1924 was promoted to comptroller of the Atlantic Coast Line and the Winston-Salem Southbound, which position he was maintaining at the time of his election as vice-president, effective March 18.

Eric E. Wright, assistant to vice-president of the New York Central system at Chicago, has been promoted to assistant vice-president, with the same headquarters. **George H. Harris**, chief engineer of the New York Central system at Chicago, has been advanced to assistant to vice-president, with the same headquarters, succeeding **Edward A. Dougherty**,



EVER FACE A FIRING SQUAD?

TAKE a good long look. This is what a condemned man...or woman...sees at twenty feet. No one has ever come back to describe that last moment before the scene is suddenly blacked out with a rattle of fire and a burst of lead.

But even a brave man or a courageous woman facing such a scene must hope feverishly that this is all just a bad dream from which there will be an awakening...a vision from a remembered movie in which someone will come, will come, in time. But no one comes.

Thousands...hundreds of thousands...of human beings, like yourself, have had just such a last glimpse of life during the past few years. And they, too, have hoped it was a dream. But it wasn't.

How far removed do you think *you* are from playing the star part in such a performance as this? Two years, three years, maybe four years...if the Japs and Nazis win.

And don't think that you can talk yourself out of it if the time comes. Don't think that you can turn coat; that begging for mercy on bended knees will spare you; that promising to be good, to cooperate, will help. Some patriot in your neighborhood will kill one of their officers in the night, and the next day you will be rounded up with nine or nineteen or ninety-nine others...to be shot.

This is something for all of us to think of...to dream of while we can still awaken to the clean air of freedom.

It is something to make all of us resolve that all our waking effort will be bent to the one job of winning this war...that whatever we know we *can* do, we *will* do...and that whatever else we can *find* to do, we will also do.

For unless *all* of us put the winning of this war before everything else, a lot of eyes that now look on this page may face that same scene in reality.

Not somebody else's eyes. *Yours...*

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whose promotion to assistant general manager of the Lines West of Buffalo and the Ohio Central Lines, with headquarters at Cleveland, Ohio, is reported elsewhere in these columns.

Mr. Wright was born at Grand Island, Neb., on December 21, 1888, and entered railway service on November 10, 1909, in



Eric E. Wright

the maintenance of way department of the Michigan Central, later serving as a yard clerk, yard brakeman and yard conductor at Michigan City, Ind. On January 1, 1916, he was advanced to yardmaster and on March 1, 1918, he was promoted to general yardmaster. In March, 1920, he was transferred to Niles, Mich., and nine months later he was promoted to trainmaster at that point, later being transferred to Michigan City. On April 16, 1923, Mr. Wright was promoted to assistant superintendent with headquarters at Jackson, Mich., and on January 4, 1928, he was advanced to superintendent of the Canada division, with headquarters at St. Thomas, Ont. He was transferred to the West division, with headquarters at Chicago, on September 15, 1930, and to the Detroit division, with headquarters at De-



G. H. Harris

troit, on May 1, 1932. On January 1, 1942, he was advanced to assistant general manager at Detroit and three months later, he was appointed assistant to the vice-president at Chicago.

Mr. Harris was born at Toledo, Ohio, on July 17, 1878, and received his engi-

neering education at the University of Michigan. He entered railway service in 1901 on the construction of the Detroit and Toledo Shore Line, and in 1902, he became an assistant of the engineering corps of the Pennsylvania at Chicago. A year later, Mr. Harris joined the engineering organization of the Michigan Central as an assistant engineer, and in 1905 he was promoted to division engineer, with headquarters at Niles, Mich., but was re-appointed assistant engineer with headquarters at Detroit, a year later. From 1907 to 1910, he was assistant engineer in charge of the grade separation project of the Michigan Central and the Chicago, Rock Island & Pacific at Joliet, Ill., and on the latter date, he was promoted to division engineer at St. Thomas, Ont. In 1912, Mr. Harris was transferred to Detroit, and in 1913, he was appointed engineer of track, which position he held for three years before being advanced to engineer maintenance of way. During the period between 1917 and 1919, he was acting assistant chief engineer, and in the latter year was appointed special engineer. He served as engineer maintenance of way in 1920-1921 and was promoted to assistant chief engineer in the latter year. On November 1, 1931, Mr. Harris was promoted to chief engineer of the Michigan Central, with headquarters at Detroit, and on October 1, 1939, he was advanced to chief engineer of the New York Central System (including the Michigan Central), with headquarters at Chicago. One year later, his jurisdiction was extended to include the Big Four and the Peoria & Eastern (also controlled by the N. Y. C.), which position he held until his recent promotion.

FINANCIAL AND ACCOUNTING

Geo. H. Gardner, general attorney of the Chesapeake & Ohio, has also been appointed attorney of the New York, Chicago & St. Louis and of the Pere Marquette, with headquarters at Washington, D. C.

L. H. Strasser, assistant general counsel of the Wabash, has been appointed general attorney and commerce counsel, with headquarters as before at St. Louis, Mo., a change of title. The position of assistant general counsel has been abolished.

Andrew C. Scott, attorney of the Eastern district of the Chicago, Burlington & Quincy, has been promoted to assistant general solicitor, with headquarters as before at Chicago, a newly-created position. **C. W. Krohl**, general claims attorney, has been advanced to attorney of the Eastern district, succeeding Mr. Scott.

Lewis Fisher Ormond, whose appointment as comptroller of the Atlantic Coast Line, with headquarters at Wilmington, N. C., was announced in the *Railway Age* of March 27, was born on August 8, 1894, at Austin, Tex. Mr. Ormond entered railroad service on July 1, 1912, as an employee of the Gulf, Colorado & Santa Fe at Galveston, Tex., serving in various clerical

positions in the accounting department of that road, until April 1, 1920, when he became a field accountant for the United States Railroad Administration. From March 1, 1921 to April 28, 1937, he was employed by the Interstate Commerce Commission in the field service of the Bureau of Accounts, serving in various positions



Lewis Fisher Ormond

from examiner of accounts, to chief accountant and auditor. Mr. Ormond became assistant comptroller of the Atlantic Coast Line, Charleston & Western Carolina, Winston-Salem South Bound, and other A. C. I. subsidiaries on May 1, 1937, and remained in that capacity until his recent advancement to comptroller.

OPERATING

R. V. Bulman has been appointed assistant car accountant of the Virginian, with headquarters at Norfolk, Va.

H. G. Nielsen, assistant superintendent of the South Omaha Terminal, has been promoted to superintendent, with headquarters as before at South Omaha, Neb.

G. H. Jedele, division superintendent of the New York Central at Cleveland, Ohio, has been transferred to the Erie division, with headquarters at Erie, Pa.

S. G. Waite, assistant trainmaster of the Chesapeake & Ohio, has been appointed trainmaster of the Cincinnati Terminal, with headquarters as before at Stevens, Ky., succeeding **W. J. Neal**, who has retired.

J. W. Garten, assistant trainmaster of the Middle division of the Atchison, Topeka & Santa Fe, with headquarters at Newton, Kan., has been promoted to trainmaster at Chicago, succeeding **E. L. Dugan**, who has been transferred to Marceline, Mo.

F. J. MacKie, assistant general manager of the Coast Lines of the Atchison, Topeka & Santa Fe, at Los Angeles, Calif., who has been on a leave of absence due to illness, has resumed his jurisdiction over the Los Angeles, Valley and San Francisco Terminal divisions. **H. H. Tisdale**, who replaced Mr. MacKie during the lat-

ter's absence, will retain his title of assistant general manager and will perform such duties as may be directed by the general manager.

C. L. Sheets, superintendent of the Detroit, Toledo & Ironton, with headquarters at Dearborn, Mich., has taken over car service and distribution, which was previously handled by **L. L. Bankard**, whose death on February 22 was reported in the *Railway Age* of March 27.

C. W. Taylor, chief clerk to the general superintendent of transportation of the Atchison, Topeka & Santa Fe, has been promoted to assistant to the general superintendent of transportation, with headquarters as before at Chicago, succeeding **Jesse Bethurem**, whose death was reported in the *Railway Age* of February 27.

D. A. Thomson, assistant to the general manager of the Northern Pacific at St. Paul, Minn., has been appointed assistant superintendent of the Yellowstone division, with headquarters at Billings, Mont., succeeding **Charles W. Fee**, who has been relieved of his duties because of ill health. Mr. Fee, however, will continue as superintendent of the Northern Pacific Transport Company, with headquarters at Billings.

C. W. Schwarz, assistant superintendent of the Central division of the Central of New Jersey, Wharton & Northern and the Mount Hope Mineral, at Jersey City, N. J., has been promoted to superintendent of the Lehigh & Susquehanna division at Mauch Chunk, Pa., succeeding **A. R. Young**, who has been retired after 50 years of service. **F. J. Cassidy** has been appointed to succeed Mr. Schwarz as assistant superintendent at Jersey City.

C. W. Russell has been appointed general superintendent of the Winston-Salem Southbound, with headquarters at Winston-Salem, N. C., succeeding **George Frederick Turley**, who will retire at his own request, effective April 16. Born on December 20, 1867, at Oakland, Md., Mr. Turley entered railroad service in 1882 as a messenger of the Shenandoah Valley (now Shenandoah division of the Norfolk & Western), and served successively as clerk and as telegrapher until 1890, when he became dispatcher of the Norfolk & Western. Remaining with that road, he subsequently served successively as chief dispatcher, assistant trainmaster and as trainmaster, later serving for one year as general manager of the Virginia-Carolina, and the New River, Holsten & Western (both roads now part of Norfolk & Western). In 1914 Mr. Turley became trainmaster of the Scioto division of the Norfolk & Western, and on January 21, 1921, he was appointed general superintendent of the Winston-Salem Southbound.

Walter Corbett Bledsoe, whose appointment as terminal superintendent of the Southern, with headquarters at Spencer, N. C., was announced in the *Railway Age* of March 27, was born on September 22, 1889, at Jackson, Ga. Mr. Bledsoe entered railroad service on November 13, 1913, as

an employee of the Georgia Southern & Florida, serving that road as flagman, brakeman and clerk at Valdosta, Ga., until September, 1917, when he entered the United States Army. Upon his return to civilian life in January, 1919, Mr. Bledsoe



Walter C. Bledsoe

became a conductor, and from May, 1925, to November of the same year, he was employed as assistant yardmaster at Macon, Ga., being advanced to yardmaster on the latter date. He became trainmaster of the Southern in November, 1942, and remained in that position until his recent appointment as superintendent of the Salisbury-Spencer terminals.

ENGINEERING & SIGNALING

Frank J. Jerome, assistant chief engineer of the New York Central system (including the Big Four and the Michigan Central) West of Buffalo, N. Y., has been promoted to chief engineer, with headquarters as before at Chicago, succeeding **George H. Harris**, whose promotion to assistant to vice-president, with headquarters at Chicago, is reported elsewhere in



Frank J. Jerome

these columns. **Foster H. Simpson**, assistant district engineer of the lines West of Buffalo and the Ohio Central lines at Cleveland, Ohio, has been advanced to assistant chief engineer at Chicago, relieving Mr. Jerome and **Ervin J. Bayer**,

assistant district engineer of the Michigan Central, with headquarters at Detroit, Mich., has been transferred to Cleveland replacing Mr. Simpson. **W. H. Miesse**, division engineer of the Big Four at Springfield, Ohio, has been advanced to assistant district engineer at Detroit, succeeding Mr. Bayer, and **W. W. Rohrbough**, assistant division engineer at Bellefontaine, Ohio, has been promoted to division engineer at Springfield, relieving Mr. Miesse.

Royden R. Brockway, assistant bridge engineer of the Northern Pacific, has been promoted to bridge engineer, with headquarters as before at St. Paul, Minn., succeeding **M. W. Beach** who has retired. Mr. Brockway was born in Rock County, Minn., on September 17, 1880, and graduated in civil engineering from the University of Minnesota in 1905. He entered railway service on June 17, 1907, as a draftsman in the bridge engineer's office at St. Paul and on November 1, 1910, he was appointed bridge inspector at Superior, Mont. On December 21, 1910, he went with the Illinois Central at Chicago, returning to the Northern Pacific on June



R. R. Brockway

26, 1911, as bridge inspector at Glendive, Mont. In November, 1911, Mr. Brockway returned to the bridge engineer's office at St. Paul as a draftsman, and on May 20, 1913, he was promoted to chief draftsman. In November, 1940, he was advanced to the position he held at the time of his new appointment.

Mr. Beach was born on April 13, 1889, at Wolcott, N. Y., and was educated in civil engineering at the University of Michigan, graduating in 1911. He entered railway service with the Northern Pacific in November, 1912, as a draftsman and designer in the bridge department. In September, 1916, Mr. Beach was advanced to assistant engineer in charge of the valuation of bridges, remaining in the valuation department until June 1922, except for one year which he spent on construction work. At the end of this period Mr. Beach was appointed assistant engineer in the construction department and in November, 1928, he was promoted to assistant district engineer with headquarters at St. Paul. In

March, 1937, following several years on special assignments, Mr. Beach was appointed acting bridge engineer, and was promoted to bridge engineer in June, 1937.

E. H. McGovern, assistant district engineer of the Cleveland, Cincinnati, Chicago & St. Louis at Cincinnati, Ohio, has been transferred to the New York Central System, with headquarters at Cleveland, Ohio.

R. W. Putnam, division engineer of the Rio Grande division of the Southern Pacific, at El Paso, Tex., has been promoted to assistant engineer, maintenance of way and structures, with headquarters at San Francisco, Cal.

TRAFFIC

W. H. Robinson has been appointed assistant general freight agent of the Chicago, Indianapolis & Louisville, with headquarters at Louisville, Ky.

M. H. Fowler, whose promotion to general passenger agent of the Union Pacific, with headquarters at Los Angeles,



M. H. Fowler

Cal., was reported in the *Railway Age* of March 27, was born at Parsons, Kan., in 1904, and entered railway service in 1922, as a stenographer of the Union Pacific, at Riverside, Cal. In 1925 he was advanced to passenger and freight agent, with headquarters at Pomona, Cal., and two years later he returned to Riverside as traveling agent. In 1938 Mr. Fowler was promoted to assistant general passenger agent, with headquarters at Los Angeles, holding that position until his new appointment, effective March 15.

William A. Fleming, passenger agent of the Atchison, Topeka & Santa Fe at Detroit, Mich., has been promoted to general agent, with headquarters at Chicago, a newly-created position.

Otis H. Underwood, traveling freight and passenger agent of the Northern Pacific at Missoula, Mont., has been promoted to general agent, with headquarters at Wallace, Idaho.

J. H. Swaim has been appointed traffic manager of the Winston-Salem South-

bound, with headquarters at Winston-Salem, N. C., succeeding **Samuel P. Collier**, whose death on February 18 was reported in the *Railway Age* of March 13.

Walter E. Oliver, assistant industrial agent of the Baltimore & Ohio at Cincinnati, Ohio, has been promoted to industrial agent, with headquarters at Chicago, and with jurisdiction over the Baltimore & Ohio main line, Willard, Ohio, to Chicago, both inclusive, and the Baltimore & Ohio Chicago Terminal. **W. E. Smith** has been appointed assistant industrial agent at Baltimore, Md., succeeding **Arnath W. Knabe**, who has been transferred to Cincinnati, succeeding Mr. Oliver.

Kenneth B. Taylor has been appointed general agent, passenger department, of the New York Central, with headquarters at Kansas City, Mo., succeeding **Arthur C. Burrows**, whose death is reported elsewhere in these columns. **C. C. Bryant** has been appointed assistant to the general passenger, with headquarters at Cincinnati, Ohio, and **L. J. Hennessey** has been appointed division passenger agent at Indianapolis, Ind., succeeding **J. N. Lemon**, whose death on January 24 was reported in the *Railway Age* of February 6. **D. R. Cooper** has been appointed district passenger agent at Indianapolis.

J. A. Brass has been elected chairman of the Canadian Passenger Association, Eastern lines, with headquarters in Montreal, succeeding **C. P. Riddell**. **J. C. O'Brien**, who has been secretary of the association since 1934, has been appointed its vice-chairman. Mr. Brass has been with the organization since 1939 when he became western secretary at Winnipeg. Prior to that time he had been with the Canadian Pacific for 36 years. He is also general secretary of the Railway Association of Canada, having taken over these duties last October when Mr. Riddell relinquished that post. Mr. O'Brien has been with the Canadian Passenger Association since 1905 when he joined it as chief clerk. Before that time he was with the Canadian Pacific, from 1898, in the superintendent's office in Ottawa, and in the office of the general agent in Hong Kong, China.

PURCHASES AND STORES

Minott Brooke has been appointed fuel service agent of the Chesapeake & Ohio, with headquarters at Huntington, W. Va., succeeding **G. G. Ritchie**, who has been granted leave of absence to enter the armed forces.

OBITUARY

Herbert S. Balliet, consulting engineer, whose death on March 29 was reported in the *Railway Age* of April 3, was born on February 26, 1868, at Neffsville, Lehigh County, Pa. He attended special engineering courses at Lehigh University, and continued his studies through the International Correspondence School. Mr. Balliet entered railroad service in 1883 as a telegraph operator of the Berks & Lehigh (now Reading), and subse-

quently served that road as station agent and then dispatcher until 1885, when he entered the employ of the Western Union Telegraph Company, serving as manager of various offices until 1888. From the latter date until 1893 he was engaged in special work in developing district messenger and synchronized clock service for Western Union then becoming successively, agent of the United State Express Company, the Adams Express Company, and assistant district manager of the United Press Association at Philadelphia, Pa. During 1893 he was also extra operator and special inspector of telegraph service of the Lehigh Valley at South Bethlehem, Pa. Remaining with that road, Mr. Balliet served successively, from 1894 to 1905, as batteryman, maintainer, general foreman, supervisor of automatic signals and assistant signal engineer. In the latter year he was appointed engineer maintenance of way of Grand Central at New York, holding that position until 1913. From 1905 to 1907 he also served on the Electric division of the New York Central in the same capacity, becoming signal engineer of the electric zone and the electric division of the New York Central in 1907



Herbert S. Balliet

and remaining in that capacity until 1926. From 1913 to 1926 he also served as assistant terminal manager of Grand Central Terminal. He became engineer of train control of the New York Central Lines in 1926, and in 1928 he was appointed special engineer. He retired from the latter position in 1932, but maintained offices as a consulting engineer from the year of his retirement until his death. Mr. Balliet served as president of the Railway Signaling Association in 1910 and as secretary and treasurer from 1905 to 1906 and during 1918; as secretary of the Signaling Division of the American Railway Association from 1919 to 1920 and as secretary of the Signaling section of the A. R. A.

William M. Weigel, mineral technologist of the Missouri Pacific, with headquarters at St. Louis, Mo., died in a local hospital on March 26.

Arthur C. Burrows, general agent, passenger department, of the New York Central at Kansas City, Mo., died on February 16. He had served the New York Central for over 38 years.

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SAVES POWER AND FUEL

THE service built into HUNT-SPILLER *Air Furnace* GUN IRON insures maximum efficiency and big savings in fuel consumption.

Liners, Pistons, Heads and Packing Rings made from HUNT-SPILLER *Air Furnace* GUN IRON can take the severe punishment of high temperatures and heavy frictional wear.

Applications in the cylinders of your Diesel power will also help to increase availability and reduce repair costs.

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Reg. U. S. Trade Mark

- Cylinder Bushings
- Cylinder Packing Rings
- Pistons or Piston Bull Rings
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- Floating Rod Bushings

Finished Parts

- Dunbar Sectional Type Packing
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- for Cylinders and Valves
- (Duplex Springs for Above
- Sectional Packing)
- Cylinder Snap Rings
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- Cylinder Liners and Pistons
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HUNT-SPILLER MFG. CORPORATION
V. W. Ellet, President E. J. Fuller, Vice-Pres. & Gen. Mgr.

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HUNT-SPILLER GUN IRON

Air Furnace

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF FEBRUARY AND TWO MONTHS OF CALENDAR YEAR 1943

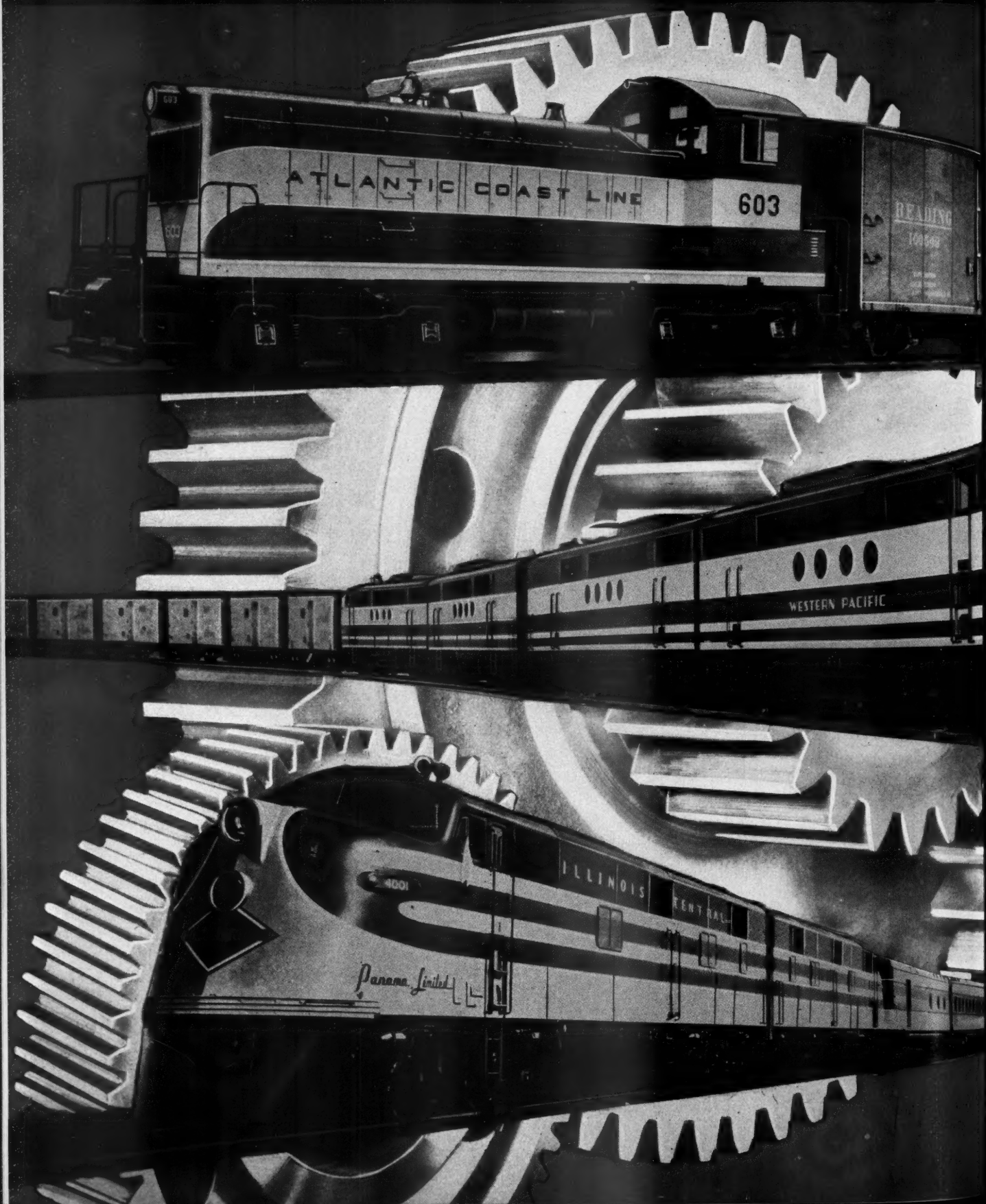
Name of road	Av. mileage operated during period	Operating revenues			Operating expenses			Operating ratio	Net from railway operation	Net railway operating income	
		Freight	Passenger	Total (inc. misc.)	Maintenance of way and structures	Equipment	Traffic			1943	1942
Akron, Canton & Youngstown	171	\$310,899	\$81	\$322,869	\$43,380	\$39,797	\$16,845	60.4	\$127,947	\$84,033	\$71,940
2 mos.	171	619,837	210	643,083	83,189	79,579	33,083	60.7	252,499	162,803	132,688
Feb.	959	2,081,518	531,904	2,878,636	250,880	429,554	44,385	57.8	1,214,594	807,309	537,855
Alton	939	4,173,557	1,159,650	5,879,091	520,315	806,250	92,191	57.3	2,307,347	1,657,142	1,114,355
Atchison, Topeka & Santa Fe System	13,160	24,637,431	6,575,806	33,591,263	3,066,311	4,759,607	480,486	51.0	16,382,163	5,070,187	4,901,505
2 mos.	13,160	51,184,425	13,264,278	69,155,517	6,073,926	9,627,558	979,308	51.2	33,861,754	10,484,327	6,942,843
Feb.	93	26,192,44	95,653	395,234	35,845	38,827	8,949	54.7	17,194,94	69,906	39,025
Atlanta & West Point	93	521,813	207,155	803,493	65,434	75,783	19,054	54.5	365,451	130,593	79,395
Western of Alabama	133	250,587	98,256	383,319	43,378	46,304	9,838	61.8	146,418	64,511	46,890
2 mos.	133	525,604	224,289	817,189	76,752	87,838	19,704	57.5	347,706	127,769	75,610
Atlanta, Birmingham & Coast	639	483,107	57,049	564,639	70,813	71,494	25,825	70.0	169,496	116,021	73,954
2 mos.	639	1,031,462	113,237	1,195,620	151,350	149,144	50,934	68.3	379,036	243,901	156,821
Atlantic Coast Line	4,991	8,924,284	3,076,202	12,689,409	903,276	1,470,768	169,036	47.2	6,704,386	2,204,386	1,651,684
2 mos.	4,991	18,097,457	6,049,859	25,548,626	1,806,483	2,938,732	329,611	47.4	13,428,975	4,428,975	3,401,591
Feb.	343	330,406	9,618	347,147	50,426	50,426	9,960	59.2	141,655	76,655	78,149
Charleston & Western Carolina	343	655,032	20,891	687,694	75,694	92,421	19,791	58.8	283,669	153,669	156,767
Baltimore & Ohio	6,150	22,527,959	2,725,448	26,677,765	2,668,539	5,172,224	454,121	66.4	8,976,110	5,587,217	5,104,288
2 mos.	6,150	45,438,799	5,526,606	53,815,793	5,307,509	10,478,423	818,098	66.8	17,890,487	11,077,105	9,917,656
Feb.	24	157,790	104,411	288,867	23,771	29,548	9,675	58.7	119,167	77,682	64,555
Staten Island Rapid Transit	24	387,550	211,094	612,524	53,408	53,958	2,182	56.2	268,134	171,513	147,304
Bangor & Aroostook	602	786,125	57,694	869,740	115,887	109,497	4,841	53.3	406,191	230,448	233,904
2 mos.	602	1,498,030	119,303	1,668,118	237,751	219,894	10,685	56.0	735,796	402,794	412,928
Feb.	214	878,646	1,717	891,541	111,415	770,350	12,805	131.4	280,175	—327,814	—156,910
Bessemer & Lake Erie	214	1,844,300	3,756	1,874,299	234,031	1,555,634	25,103	127.3	512,505	—622,978	—331,116
Boston & Maine	1,825	4,552,461	1,464,543	6,543,842	924,845	1,025,789	77,768	70.1	1,955,671	1,202,791	876,587
2 mos.	1,825	9,262,331	2,791,619	13,188,881	1,917,418	2,663,565	149,463	71.3	3,783,672	2,307,434	1,715,489
Feb.	928	180,440	58,175	219,313	21,926	17,281	7,894	60.0	87,643	76,452	54,311
Burlington, Rock Island	228	303,541	113,438	440,152	48,286	43,868	5,168	63.8	159,308	136,993	93,472
Cambria & Indiana	35	172,447	.....	172,510	10,855	75,437	436	64.74	60,827	—32,821	37,136
2 mos.	35	332,534	.....	332,656	27,032	144,120	1,095	67.35	108,608	—78,751	67,875
Feb.	234	372,323	47,467	439,407	41,281	58,919	6,460	57.2	188,103	168,813	141,227
Canadian Pacific Lines in Maine	234	725,643	92,478	858,689	87,268	115,229	12,212	58.3	357,957	318,703	253,634
Canadian Pacific Lines in Vermont	90	68,282	12,210	93,664	25,912	23,012	2,342	147.8	—44,817	—54,089	—80,718
Feb.	90	132,273	28,113	209,166	53,029	48,945	4,423	133.8	—70,680	—88,888	—139,611
Central of Georgia	1,815	2,117,856	400,535	2,845,092	294,842	382,542	68,024	62.1	1,072,165	769,877	723,692
2 mos.	1,815	4,128,454	1,001,967	5,584,314	602,011	766,385	135,032	64.3	1,996,123	1,379,854	1,324,775
Central of New Jersey	657	3,924,285	589,717	4,767,604	499,051	831,091	48,274	75.3	1,777,113	597,259	371,313
2 mos.	657	7,913,449	1,182,327	9,683,326	1,033,382	1,655,485	98,715	75.5	2,376,163	1,208,965	751,296
Feb.	422	540,246	65,000	641,072	92,632	116,655	10,203	79.6	130,490	85,468	49,079
Central Vermont	422	1,091,898	137,000	1,304,533	176,884	227,390	20,060	77.8	289,099	208,255	125,867
Chesapeake & Ohio	3,092	13,491,501	1,329,553	15,248,344	1,477,591	2,644,737	219,876	54.3	6,967,349	2,475,830	2,931,459
2 mos.	3,092	27,130,162	2,932,285	30,929,749	2,970,408	5,425,513	424,346	54.5	14,086,063	4,981,240	5,940,474
Feb.	912	1,845,165	472,454	2,515,376	210,081	352,879	56,366	59.9	1,009,102	621,102	386,959
Chicago & Eastern Illinois	912	3,620,965	957,748	4,981,872	434,502	727,590	116,447	61.5	1,919,844	1,214,844	754,901
Chicago & Illinois Midland	131	479,017	1,170	502,168	49,929	72,397	20,054	54.9	226,488	76,447	81,589
2 mos.	131	971,554	2,494	1,020,525	99,496	149,526	46,411	56.2	447,312	152,060	134,848
Feb.	8,100	8,585,698	2,049,330	11,745,572	1,455,013	2,000,995	196,377	66.7	3,907,856	2,251,081	2,110,119
Chicago & North Western	8,100	16,837,176	4,083,466	23,223,448	3,023,613	4,017,038	391,322	69.2	7,146,120	4,085,435	3,823,199
Chicago, Burlington & Quincy	9,035	12,926,780	2,067,450	16,228,972	1,546,192	1,974,383	243,400	50.1	8,101,627	4,281,030	4,085,716
2 mos.	9,035	24,533,953	4,272,486	31,337,147	3,096,233	4,048,844	500,066	53.1	14,707,719	7,762,321	7,319,414
Feb.	1,501	2,014,995	209,326	2,363,494	301,180	383,806	61,456	62.8	877,482	458,683	287,158
Chicago Great Western	1,501	3,840,208	415,162	4,558,522	595,893	550,676	124,448	65.4	1,575,074	913,209	556,141
Chicago, Indianapolis & Louisville	541	850,451	83,680	999,811	93,023	162,059	29,465	63.0	369,546	292,151	149,905
2 mos.	541	1,736,363	179,756	2,051,465	200,817	338,092	63,517	63.7	743,032	586,725	306,314

MONTH OF FEBRUARY AND TWO MONTHS OF CALENDAR YEAR 1943—CONTINUED

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REVENUES AND EXPENSES OF RAILWAYS

MONTH OF FEBRUARY AND TWO MONTHS OF CALENDAR YEAR 1943—CONTINUED

Name of road	Av. mileage operated during period	Operating revenues			Operating expenses			Operating ratio	Net from railway operation	Net railway operating income	
		Freight	Passenger	Total (inc. misc.)	Maintenance of Way and structures	Equip-ment	Traffic			1943	1942
Gulf, Mobile & Ohio	1,972	\$2,866,594	\$169,259	\$3,116,483	\$411,635	\$454,452	\$78,232	60.1	\$1,245,085	\$598,875	\$243,241
Illinois Central	1,972	5,787,032	352,024	6,307,127	857,779	897,931	162,543	60.7	2,481,011	1,283,634	496,388
Illinois Central	4,824	13,398,013	2,249,484	16,589,560	2,431,955	2,777,039	203,958	63.2	6,099,910	3,168,719	1,803,500
Illinois Central	4,832	27,183,527	4,577,539	33,612,959	5,040,355	5,719,522	411,750	64.5	11,925,587	6,831,895	3,495,939
Yazoo & Mississippi Valley	1,525	2,365,228	270,255	2,635,483	466,140	349,100	39,672	64.6	976,968	545,022	881,382
Illinois Central System	1,525	5,187,253	651,911	5,839,164	933,430	1,009,939	80,435	60.6	2,403,717	1,403,675	1,445,966
Illinois Central System	6,349	15,763,241	2,519,739	19,350,701	2,898,095	3,126,139	243,630	63.4	7,076,878	4,054,637	2,690,885
Illinois Central System	6,357	33,370,780	5,229,450	39,708,898	5,973,695	6,455,835	492,185	63.9	14,329,304	8,225,213	7,125,841
Illinois Terminal	476	478,791	175,414	654,205	713,422	78,147	17,907	57.12	305,934	123,365	118,304
Kansas City Southern	476	978,980	348,762	1,450,900	156,686	176,601	36,721	57.33	619,083	249,678	252,126
Kansas City Southern	878	2,965,251	260,196	3,425,552	631,563	399,684	57,884	57.9	1,442,611	784,611	401,830
Kansas City Southern	878	5,937,559	579,334	6,916,392	1,246,622	812,095	117,332	57.9	2,911,907	1,595,907	714,636
Kansas, Oklahoma & Gulf	328	365,927	1,162	370,821	33,404	18,542	9,565	38.4	228,504	143,232	38,203
Lake Superior & Ishpeming	328	689,790	2,379	700,255	63,924	32,484	19,187	39.5	423,448	264,827	214,341
Lake Superior & Ishpeming	156	31,989	159	34,514	29,109	40,838	555	29.0	—68,695	—93,740	—71,583
Lake Superior & Ishpeming	156	68,301	354	74,052	54,614	84,947	1,236	28.1	—134,068	—184,359	—155,921
Lehigh & Hudson River	96	252,172	347	253,422	23,252	27,096	3,846	53.5	117,725	48,135	25,201
Lehigh & Hudson River	96	482,174	570	484,407	52,757	55,150	7,674	56.8	209,220	96,622	50,335
Lehigh & Hudson River	190	491,108	.....	493,095	34,656	110,401	15,282	66.5	165,433	85,895	106,423
Lehigh & Hudson River	190	925,636	.....	930,396	76,320	222,201	12,786	68.9	289,734	146,532	177,800
Lehigh Valley	1,260	5,760,405	418,634	6,560,305	537,162	1,091,473	108,125	65.6	2,290,168	1,438,514	474,342
Louisiana & Arkansas	1,260	11,725,939	837,825	13,526,603	1,130,235	2,292,490	216,751	67.0	4,462,247	2,796,690	1,988,224
Louisiana & Arkansas	854	1,445,432	106,935	1,608,712	374,809	149,515	29,832	56.3	702,523	352,318	190,099
Louisiana & Arkansas	854	2,887,109	221,714	3,235,779	682,144	333,163	60,680	56.0	1,422,211	558,472	421,695
Louisville & Nashville	4,745	11,960,821	3,373,114	16,165,040	1,456,268	2,398,267	196,478	54.8	7,299,424	4,867,447	2,098,238
Louisville & Nashville	4,745	2,170,517	6,184,420	32,127,075	2,953,132	4,983,092	391,300	57.0	13,826,270	8,629,870	4,059,083
Maine Central	988	1,151,322	213,855	1,453,091	202,716	243,000	14,284	70.0	436,051	255,121	199,431
Maine Central	988	2,353,927	422,736	2,967,836	418,818	493,700	26,424	68.6	930,661	522,457	447,156
Midland Valley	351	137,215	675	141,473	14,446	13,270	1,971	50.2	70,464	52,660	44,492
Minneapolis & St. Louis	351	294,404	796	302,628	25,556	24,507	4,278	46.8	161,149	132,111	115,020
Minneapolis & St. Louis	1,408	1,046,941	33,607	1,118,514	118,677	148,995	58,958	63.4	409,061	312,802	315,245
Minneapolis & St. Louis	1,408	2,115,812	58,566	2,251,008	232,763	311,741	120,627	65.7	772,763	643,530	619,733
Minneapolis, St. Paul & Sault Ste. Marie	4,277	2,904,696	168,164	3,277,290	456,578	587,920	68,583	75.1	815,032	514,346	498,754
Duluth, South Shore & Atlantic	4,277	5,573,355	351,910	6,357,997	953,706	1,200,098	140,023	80.9	1,216,517	685,907	635,512
Duluth, South Shore & Atlantic	551	232,322	17,454	268,437	51,519	50,467	8,349	88.2	31,801	12,334	8,940
Duluth, South Shore & Atlantic	550	484,418	37,553	557,096	106,079	103,301	16,030	86.4	75,709	36,588	26,912
Spokane International	152	160,969	3,597	172,576	15,512	8,346	2,845	36.9	108,926	52,564	42,455
Mississippi Central	152	283,677	8,347	308,269	31,526	16,153	5,724	42.6	176,903	89,013	73,680
Mississippi Central	158	136,689	2,393	141,629	20,092	12,833	8,741	54.1	65,031	40,257	32,730
Mississippi Central	158	270,568	5,624	280,845	41,076	26,977	16,854	55.6	134,694	77,732	62,958
Missouri & Arkansas	365	175,972	2,866	184,718	41,186	18,340	57,261	70.3	54,878	34,743	21,014
Missouri & Arkansas	365	322,440	5,873	347,085	79,925	35,994	13,678	75.3	85,707	54,283	27,493
Missouri & Arkansas	172	230,709	412	232,226	26,363	32,451	3,076	58.4	96,538	26,222	19,542
Missouri & Arkansas	172	495,046	676	498,073	52,829	64,240	6,482	53.3	232,535	77,894	60,785
Missouri-Kansas-Texas Lines	3,293	4,755,297	1,026,292	6,191,650	1,335,732	742,980	118,182	67.2	2,032,963	1,440,631	958,694
Missouri Pacific	3,293	9,743,088	2,015,917	12,603,911	2,511,627	1,559,229	239,083	66.2	4,255,837	2,864,215	1,880,502
Missouri Pacific	7,096	14,291,832	2,166,425	17,529,542	1,475,899	1,992,099	275,357	49.9	8,785,018	4,530,421	2,152,029
Missouri Pacific	7,096	27,998,047	4,424,316	34,636,518	3,038,799	4,094,462	557,373	52.3	16,528,097	9,975,529	8,209,762
Gulf Coast Lines	1,234	3,081,987	271,098	3,494,066	399,656	254,947	49,813	43.15	1,986,426	893,987	620,048
International Great Northern	1,234	5,969,177	539,572	7,299,924	803,750	1,551,552	101,533	45.53	3,697,720	1,680,857	1,108,518
International Great Northern	1,155	1,732,982	773,808	2,287,553	272,863	273,148	31,684	55.8	1,011,418	509,842	371,155
International Great Northern	1,155	3,584,645	711,913	4,653,225	522,377	555,940	65,580	54.9	2,098,116	1,068,270	820,325
Monongahela	171	561,908	1,277	565,778	56,236	39,602	650	41.4	331,342	170,859	89,232
Monongahela	171	1,154,675	2,823	1,162,808	122,326	84,247	1,447	43.6	635,277	347,954	195,955

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF FEBRUARY AND TWO MONTHS OF CALENDAR YEAR 1943—CONTINUED

Name of road	Av. mileage operated during period	Operating revenues			Operating expenses			Operating ratio	Net from railway operation	Net railway operating income	
		Freight	Passenger	Total (inc. misc.)	Maintenance of Way and structures	Equipment	Traffic			1943	1942
Montour	Feb. 51	\$217,646	.....	\$219,416	11,075	\$51,594	\$832	61.9	\$83,558	\$57,998	\$37,355
Nashville, Chattanooga & St. Louis	2 mos. 51	444,095	.....	444,095	22,853	105,725	447,007	61.4	129,785	121,967	80,676
	Feb. 1,090	2,288,013	512,447	3,007,765	341,671	487,100	73,807	61.8	1,149,844	678,738	174,100
	1,090	4,679,711	1,092,904	6,226,876	681,227	1,002,760	148,878	61.2	2,415,663	1,276,826	385,033
Nevada Northern	Feb. 165	51,065	1,205	54,684	9,942	3,323	1,184	48.9	27,917	11,279	12,275
	2 mos. 165	104,464	2,440	111,667	17,899	6,090	2,412	46.7	59,535	23,103	24,817
New York Central	Feb. 10,816	38,383,193	9,262,394	52,016,210	5,686,547	9,106,736	592,517	66.5	17,402,203	8,529,597	3,659,244
	2 mos. 10,831	73,630,664	19,607,170	102,550,784	11,657,292	17,726,002	1,269,909	68.5	32,316,130	17,925,816	6,837,811
Pittsburgh & Lake Erie	Feb. 233	2,425,902	91,675	2,598,068	226,611	768,551	776,932	73.6	685,989	—	223,697
	2 mos. 233	5,103,775	190,207	5,455,925	463,299	1,646,287	1,578,410	72.8	1,487,005	1,040,553	692,794
New York, Chicago & St. Louis	Feb. 1,688	7,288,257	168,443	7,577,386	627,908	941,043	126,683	53.5	3,520,880	1,061,200	1,205,872
	2 mos. 1,688	15,072,936	349,612	15,696,114	1,284,820	1,985,243	257,993	53.7	7,266,179	3,189,584	2,226,858
New York, New Haven & Hartford	Feb. 1,838	7,048,302	5,001,373	13,035,897	1,418,119	1,707,047	118,245	61.1	5,072,020	2,965,604	1,557,832
	2 mos. 1,838	14,285,157	10,298,554	26,654,607	2,810,932	3,490,358	262,365	60.8	10,444,580	6,231,748	2,525,892
New York Connecting	Feb. 21	175,346	.....	175,346	67,864	22,018	.....	71.1	158,670	—	92,456
	2 mos. 21	373,294	.....	409,219	125,961	34,167	.....	61.8	158,420	214,399	233,516
New York, Ontario & Western	Feb. 546	514,598	29,951	613,643	81,474	121,239	22,048	92.8	44,441	—	27,912
	2 mos. 546	1,033,770	44,657	1,078,427	160,507	246,838	43,488	95.2	57,245	—	79,944
New York, Susquehanna & Western	Feb. 262	409,547	39,097	465,914	27,818	27,132	3,776	50.6	230,043	164,994	24,848
	2 mos. 262	811,559	81,546	936,320	59,168	60,042	7,897	53.6	434,734	313,425	67,962
Norfolk & Western	Feb. 2,156	10,576,451	1,013,547	12,000,885	1,166,629	2,374,703	178,262	56.0	5,278,915	961,145	1,433,854
	2 mos. 2,156	21,409,762	2,158,790	24,354,353	2,380,402	4,708,184	335,526	54.4	11,108,525	2,284,451	3,697,143
Norfolk Southern	Feb. 734	592,095	19,356	633,714	136,855	174,379	29,524	71.3	181,766	111,274	81,638
	2 mos. 734	1,167,382	45,625	1,258,802	272,964	350,161	58,722	73.0	339,832	206,777	70,231
Northern Pacific	Feb. 6,867	8,323,878	875,935	10,000,885	1,153,376	1,807,438	163,226	64.9	3,512,764	1,729,118	1,367,869
	2 mos. 6,867	16,571,471	1,855,934	20,072,410	2,403,211	3,666,729	331,454	66.6	6,698,286	3,277,510	2,562,083
Northwestern Pacific	Feb. 331	413,653	5,566	436,064	144,544	42,407	2,415	76.0	104,457	81,609	54,161
	2 mos. 331	806,881	21,410	860,718	274,208	90,789	4,634	75.2	213,362	167,571	63,712
Oklahoma City-Ada-Atoka	Feb. 132	124,172	.....	126,452	16,161	5,015	1,142	44.7	69,913	45,910	18,136
	2 mos. 132	247,275	.....	251,725	37,550	9,310	2,605	48.6	129,441	87,388	37,029
Pennsylvania	Feb. 10,183	47,880,104	16,154,372	68,563,128	7,982,631	12,313,780	921,542	74.6	17,392,174	6,032,070	2,024,441
	2 mos. 10,183	97,810,426	33,927,934	142,063,372	16,681,954	25,458,468	1,916,203	74.0	36,932,074	14,287,336	5,711,955
Long Island	Feb. 378	961,885	1,789,052	2,892,269	569,144	462,296	37,250	85.8	411,628	170,608	—
	2 mos. 378	1,893,951	3,696,192	5,878,379	1,269,393	939,241	73,202	87.8	718,115	232,311	—
Pennsylvania-Reading Seashore Lines	Feb. 399	419,368	269,476	714,336	133,828	104,547	6,948	92.1	56,103	—	—
	2 mos. 401	847,245	480,423	1,382,580	270,681	214,482	13,415	96.2	52,769	—	—
Pere Marquette	Feb. 2,032	3,709,407	239,189	4,166,908	508,029	727,896	68,540	68.1	1,329,191	618,550	277,544
	2 mos. 2,032	7,445,838	503,256	8,335,456	1,020,822	1,455,552	135,329	68.0	2,588,917	1,243,008	603,863
Pittsburg & Shawmut	Feb. 97	95,911	.....	96,072	14,876	22,311	1,954	70.2	28,606	21,308	20,889
	2 mos. 97	191,351	.....	191,726	28,962	39,274	4,026	69.6	58,204	36,766	46,581
Pittsburgh & West Virginia	Feb. 136	610,435	.....	628,491	73,316	106,263	19,505	64.1	225,434	147,233	115,273
	2 mos. 136	1,218,014	.....	1,255,509	163,443	220,671	38,553	64.8	441,526	284,449	256,827
Pittsburg, Shawmut & Northern	Feb. 190	112,341	.....	113,847	18,847	22,311	1,061	73.6	27,715	21,786	15,573
	2 mos. 190	220,079	.....	223,331	30,291	45,981	2,069	78.3	48,363	36,088	23,164
Reading	Feb. 1,420	7,807,416	778,064	9,015,710	880,568	1,815,959	79,327	67.5	2,927,134	1,748,288	1,071,105
	2 mos. 1,420	15,736,789	1,508,954	18,119,809	1,759,450	3,768,946	167,027	68.4	5,730,015	3,189,019	2,020,997
Richmond, Fredericksburg & Potomac	Feb. 118	1,503,171	1,074,882	2,778,481	115,625	228,181	11,131	39.6	1,678,243	477,194	308,893
	2 mos. 118	3,244,745	2,228,964	5,888,887	248,241	455,214	21,784	38.4	3,629,326	997,085	625,322
Rutland	Feb. 407	209,924	56,304	328,245	47,354	67,366	9,241	93.0	22,970	1,365	36,164
	2 mos. 407	426,587	102,868	655,823	96,234	136,440	20,322	95.6	29,030	—	45,371

Table continued on next left-hand page

4800 WORKERS WILL BE HURT TODAY

Today—tomorrow—each day this year—occupational accidents will disable 4,800 essential workers for 20 days or more! 34 million precious man-days of labor lost in a critical year—based on 1942 experience—without including fatal accidents! Think how this man-power waste is delaying Victory.

While disabilities don't often result from piping accidents, they are inexcusable—now or any time. With simple precautions like those following, for example, piping maintenance men can help lessen the hazards to American workers now when they're most needed on the job.

SAFETY HINTS FOR PIPING MEN

- 1 Don't install valves where getting at them means exposure to danger.
- 2 Support lines firmly to prevent loosening at joints.
- 3 Identify valves so they can be quickly operated in emergencies.
- 4 Install relief valves where there is danger of sudden built-up pressures.
- 5 Inspect sprinkler system control valves regularly. Keep them open always.



The safety hints given here are from "Piping Pointers" Bulletins—a Crane service aiding piping men in hundreds of plants in doing more to help win the war. Giving many "do's and don'ts" and "rights and wrongs" on keeping pipe lines at peak efficiency—conserving critical metals—and speeding piping jobs, these bulletins, based on Crane's 87-year leadership in flow-control engineering, are especially valuable for training new maintenance men. Copies free on request from your Crane Representative or by writing to: Crane Co., 836 South Michigan Avenue, Chicago, Illinois.



CRANE VALVES

REVENUES AND EXPENSES OF RAILWAYS

MONTH OF FEBRUARY AND TWO MONTHS OF CALENDAR YEAR 1943—CONTINUED

Name of road	Av. mileage operated during period	Operating revenues			Operating expenses			Operating ratio	Net from operation	Net railway operating income	
		Freight	Passenger (inc. misc.)	Total	Maintenance of way and structures	Traffic	Trans- portation			1943	1942
St. Louis-San Francisco	Feb. 4,671	\$5,831,161	\$1,584,482	\$7,415,643	\$815,965	\$146,972	\$2,493,254	64.5	\$2,820,351	\$1,882,007	\$1,873,877
2 mos. 4,671		11,390,335	3,258,649	14,648,984	1,653,618	290,583	5,115,577	66.7	5,235,180	3,463,021	2,991,337
St. Louis, San Francisco & Texas	Feb. 159	298,847	22,957	321,804	29,793	9,168	87,221	68.2	170,890	110,028	83,514
2 mos. 159		619,060	30,106	649,166	57,046	18,270	178,932	48.2	343,447	218,294	164,303
St. Louis-Southwestern Lines	Feb. 1,617	4,761,179	277,145	5,038,324	360,344	93,436	1,115,080	40.8	3,046,425	1,075,253	772,046
2 mos. 1,617		9,372,333	554,305	9,926,638	712,401	190,456	2,300,067	41.6	5,941,374	1,963,378	1,387,007
Seaboard Air Line	Feb. 4,184	7,591,516	3,186,316	10,777,832	1,068,276	223,167	3,119,005	54.4	5,225,719	4,125,719	3,547,796
2 mos. 4,184		15,280,268	6,298,224	21,578,492	2,100,075	440,756	6,310,276	54.7	10,403,365	8,203,365	7,072,340
Southern Railway	Feb. 6,514	13,682,669	3,826,290	17,508,959	1,837,618	193,905	4,686,918	52.4	8,876,250	3,066,209	2,844,347
2 mos. 6,514		27,992,586	7,708,434	35,699,020	3,779,684	385,888	9,733,083	53.2	17,738,706	6,206,765	5,680,877
Alabama Great Southern	Feb. 315	1,271,235	296,118	1,567,353	125,651	24,545	439,343	53.2	770,599	279,791	221,271
2 mos. 315		2,701,834	614,251	3,316,085	272,835	49,395	988,426	54.2	1,598,765	553,184	395,585
Cincinnati, New Orleans & Texas Pacific	Feb. 337	2,155,893	525,558	2,681,451	248,361	36,374	631,123	51.7	1,352,953	543,101	499,076
2 mos. 337		4,609,918	894,685	5,504,603	495,017	78,827	1,317,679	52.1	2,750,401	978,926	906,357
Georgia Southern & Florida	Feb. 397	3,014,433	219,957	3,234,390	56,861	2,420	153,854	49.7	283,543	123,220	89,971
2 mos. 397		6,475,543	380,962	6,856,505	131,289	4,720	306,552	50.6	549,708	236,405	178,309
New Orleans & Northeastern	Feb. 204	816,341	186,236	1,002,577	91,669	11,695	227,296	43.2	594,783	200,298	126,887
2 mos. 204		1,732,189	357,777	2,089,966	183,475	24,318	504,856	43.4	1,245,341	396,818	238,655
Southern Pacific Co.	Feb. 8,319	24,757,501	6,212,265	30,969,766	3,644,019	454,606	9,361,126	60.2	13,510,320	6,983,067	5,559,567
2 mos. 8,334		48,409,607	12,764,495	61,174,102	7,268,400	927,955	19,356,136	62.5	23,140,407	13,632,423	11,155,633
Texas & New Orleans	Feb. 4,341	8,167,437	1,823,275	10,000,712	1,042,220	137,425	2,279,478	45.3	5,762,617	2,898,618	2,365,993
2 mos. 4,341		15,777,792	3,688,292	19,466,084	2,077,075	274,346	4,625,508	47.0	10,875,133	5,645,866	4,733,579
Spokane, Portland & Seattle	Feb. 929	1,357,647	142,463	1,500,110	183,460	12,267	436,517	50.2	805,485	178,619	560,996
2 mos. 929		2,916,873	261,987	3,178,860	353,896	24,042	1,001,420	50.2	1,707,229	1,522,653	1,175,004
Tennessee Central	Feb. 286	288,154	40,787	328,941	66,671	6,695	106,040	70.1	103,667	66,997	60,987
2 mos. 286		564,244	77,586	641,830	137,939	13,126	220,465	73.7	178,445	115,717	97,302
Texas & Pacific	Feb. 1,903	3,163,830	1,495,185	4,659,015	617,736	91,847	1,187,878	56.4	2,217,561	840,403	769,117
2 mos. 1,903		6,431,798	3,019,203	9,450,999	1,232,371	187,574	2,443,099	56.4	4,505,945	1,579,892	1,445,457
Texas Mexican	Feb. 162	126,697	1,652	128,349	145,861	3,731	37,550	57.9	61,442	52,651	42,973
2 mos. 162		293,970	2,521	296,491	345,669	7,306	72,527	48.4	178,311	161,911	142,265
Toledo, Peoria & Western	Feb. 239	338,489	37	338,526	37,875	20,107	67,899	43.9	191,785	178,352	162,818
2 mos. 239		701,995	47	702,042	68,430	41,861	141,089	43.4	400,391	373,924	339,840
Union Pacific System	Feb. 9,837	24,442,256	5,200,166	29,642,422	4,394,801	495,918	8,658,527	33.9	11,601,057	4,401,910	3,486,006
2 mos. 9,837		48,957,279	10,519,137	59,476,416	8,487,413	1,015,296	18,099,468	34.7	22,739,089	8,363,678	6,405,498
Utah	Feb. 111	120,236	.....	120,236	17,804	498	31,532	76.5	28,300	12,871	11,528
2 mos. 111		252,037	.....	252,037	36,850	917	65,251	74.8	63,535	33,366	29,822
Virginian	Feb. 659	2,120,964	6,706	2,127,670	184,827	24,895	404,634	49.5	1,117,691	492,691	609,649
2 mos. 659		4,283,599	14,802	4,298,401	380,774	49,378	826,821	50.9	1,038,821	1,271,392	1,271,392
Wabash	Feb. 2,393	6,262,826	653,902	6,916,728	691,711	186,655	2,358,762	59.0	2,985,411	1,260,493	619,036
2 mos. 2,393		12,249,605	1,442,494	13,692,099	1,302,452	348,864	4,588,925	58.2	6,028,249	2,629,934	1,713,587
Ann Arbor	Feb. 294	393,158	5,851	399,009	45,583	16,890	187,302	82.2	72,169	38,604	35,417
2 mos. 294		803,364	12,359	815,723	83,876	31,991	367,110	79.4	171,883	93,079	87,260
Western Maryland	Feb. 848	2,710,217	21,784	2,732,001	2,802,827	44,547	7,357,736	59.0	1,149,398	677,398	690,373
2 mos. 848		5,556,577	45,121	5,601,698	5,441,108	86,997	14,474,758	58.0	2,424,505	1,432,505	1,473,346
Western Pacific	Feb. 1,195	2,568,821	158,860	2,727,681	314,984	71,716	953,130	65.1	990,414	667,376	490,891
2 mos. 1,195		5,021,989	324,640	5,346,629	624,640	145,501	1,899,751	64.5	2,034,383	1,358,805	1,005,815
Wheeling & Lake Erie	Feb. 1,507	2,009,197	.....	2,009,197	203,227	40,578	565,763	58.6	850,491	1,333,528	273,909
2 mos. 507		4,130,242	.....	4,130,242	391,018	79,479	1,153,893	57.3	1,801,156	271,620	559,860